NRS eReports Manual: User Guide and Report Interpretation Guidelines

April 2015

Canadian Institute for Health Information

Institut canadien d'information sur la santé

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NRS eReports Manual: User Guide and Report Interpretation Guidelines
April 2015

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About CIHI

The Canadian Institute for Health Information (CIHI) collects and analyzes information on health and health care in Canada and makes it publicly available. Canada's federal, provincial and territorial governments created CIHI as a not-for-profit, independent organization dedicated to forging a common approach to Canadian health information. CIHI's goal: to provide timely, accurate and comparable information. CIHI's data and reports inform health policies, support the effective delivery of health services and raise awareness among Canadians of the factors that contribute to good health.

About NRS

The National Rehabilitation Reporting System (NRS) was developed by CIHI in 2001 to support data collection by hospitals for inpatient rehabilitation clients who are mainly age 18 and older. The rehabilitation services are provided in specialized rehabilitation hospitals and in general hospitals within rehabilitation units, programs or designated rehabilitation beds. At the end of 2013-2014, there were over 400,000 pairs of admission and discharge records (that is, complete episodes) in the NRS database, submitted by over 100 hospitals in nine provinces and covering a range of health conditions including strokes, orthopedic conditions and amputations.

For additional information on the NRS or for additional NRS publications, please write to nrs@cihi.ca or visit the NRS website at www.cihi.ca/nrs.

About This Manual

This manual is divided into three main parts:

Part 1 is the **NRS eReports User Guide** and comprises chapters 1 to 8. This first part has been developed to assist you in getting to know and navigate the NRS eReports system and teach you how to create, manipulate and format reports. The User Guide portion of this manual includes the following topics:

- NRS eReports terminology;
- How to create your own NRS reports;
- How to change the format and content of reports;
- How to save, export and print reports; and
- How to save reports for easy generation of quarterly updates.

Part 2 is the **NRS Report Interpretation Guidelines** and comprises chapters 9 to 15. This second part outlines the general format and content of reports that can be created in the NRS eReports environment. Through the use of this part of the manual, facilities can enhance the use of their created reports for policy development and decision-making in rehabilitation. The Report Interpretation Guidelines portion of this manual includes the following topics:

- Data submission details;
- Detailed descriptions of available reports;
- Descriptions of NRS attributes and metrics (indicators); and
- Where to get further help with NRS eReports.

Part 3 is a collection of **Appendices** that may assist in navigating, using and understanding the NRS eReports.

All references to “facilities” made in this manual refer to rehabilitation facilities or rehabilitation units participating in the NRS.

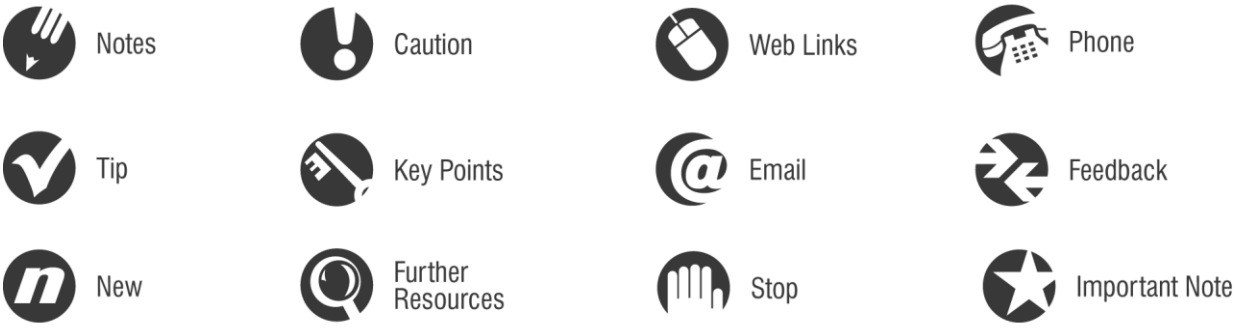
NRS data elements in this manual are generally identified by name and/or number. For example, data element 19A Admission Class. Refer to the most recent version of the *NRS Rehabilitation Minimum Data Set Manual* for complete information on the individual data elements in the NRS.

Throughout this manual, the term “assessment” is used interchangeably with “record” to refer to the individual set of information collected at admission, discharge or follow-up for a unique client. A complete admission and discharge assessment/record pair constitutes a rehabilitation “episode.” The term “FIM® instrument assessment” is used to refer specifically to information collected with only the FIM® instrument. A glossary of terms commonly used in the NRS is available in Appendix B.

Feedback on this manual is welcome and can be directed to the NRS team at nrs@cihi.ca.

Note: If you are viewing this manual electronically, you may take advantage of hyperlinks that have been created to allow you to quickly jump from one location of the document to a related location. For example, some terms that are used may contain hyperlinks to their associated definitions in another part of the document. Words that are hyperlinked to another location will be blue and a hand will appear when you position your cursor over them. To return back to your former location after following a hyperlink, simply click the bookmark located at the left of the screen. The table of contents is also hyperlinked to allow you to quickly navigate to your desired chapter.

Symbols Used in This Manual



Part 1: NRS eReports User Guide

Chapter 1 Introduction to NRS eReports
Chapter 2 Accessing NRS eReports
Chapter 3 NRS eReports Launch Page
Chapter 4 NRS eReports Navigation Toolbar
Chapter 5 NRS eReports Terminology
Chapter 6 Creating Reports
Chapter 7 Modifying and Formatting Reports
Chapter 8 Saving, Exporting and Printing

1 Introduction to NRS eReports

1.1 What Is the NRS eReports System?

The National Rehabilitation Reporting System (NRS) eReports system is a secure and confidential online service that provides authorized users with a unique ability to view and analyze administrative and clinical NRS data. It is available to organizations submitting data to the NRS, their health authorities and ministries of health. The NRS eReports system provides these users with a customized view of selected administrative and clinical NRS data to facilitate evidence-based decision-making and comparisons within the Canadian health care system.

The NRS eReports system is powered by MicroStrategy's suite of business intelligence tools. MicroStrategy was chosen by CIHI for its comprehensive set of reporting and analysis features.

What NRS eReports can Offer:

Information:

- Client demographics and function indicators, resource utilization indicators and other outputs for the most recent six fiscal years, and
- Facility, peer and national results

Functionality:

- Selection of peers for comparison
- Manipulation of the appearance of reports
- Graph creation
- Exporting or saving data to Excel or PDF files, and
- Ability to save report templates to allow for easy quarterly recreation of preferred reports

1.2 Who Has Access to NRS eReports?

NRS eReports are available only to authorized users identified by organizations participating in the NRS. Each facility coordinator is responsible for ensuring that only staff who need access to the reports are registered as users. The terms and conditions of use of data in the NRS eReports are governed by a service agreement signed by participating organizations. If your organization is already submitting data to the NRS, a new service agreement will be signed before CIHI provides access to eReports. If organizations are preparing to submit their first data to CIHI, a NRS service agreement must be established. If you have any questions, please contact the NRS team at nrs@cihi.ca.

1.3 Data Available

The data mart referenced by NRS eReports contains data from the National Rehabilitation Reporting System since its inception. However, only the most recent six fiscal years will be made available to report users.

NRS eReports are currently updated on a quarterly basis, usually within three weeks following the data submission deadline for the quarter.

Note that if a facility does not submit its data on time, its data will not be included in any of that quarter's eReports and will only be added after the subsequent fiscal quarter. Until that time, the facility's older data will remain available.

For more information about submitting data, submission options and submission deadlines, please see Chapter 9.

2 Accessing NRS eReports

2.1 Computer Requirements

As the NRS eReports system is web-based, there are minimum hardware and software requirements for users' computers for optimal use:

Hardware

Requirement	Minimum	Recommended
Processor	1 GHz	2 GHz or higher
Memory (RAM)	512 MB	2 GB or higher

Software

Requirement	Recommended
Operating system	**Certified**: • Windows 2000 SP4 all editions (on x86) • Windows Server 2003 SP2 all editions (on x86) • Windows XP SP3 all editions (on x86) • Windows Vista SP1 all editions (on x86) **Supported**: • Solaris 8.x (on SPARC) • Solaris 9.x (on SPARC) • Solaris 10.x (on SPARC) • AIX 5L Version 5.2 (on IBM POWER Architecture) • AIX 5L Version 5.3 (on IBM POWER Architecture) • AIX 6.1 (on IBM POWER Architecture) • Red Hat Enterprise Linux 3 ES and AS 3 (on x86-64) • Red Hat Enterprise Linux ES and AS 4 (on x86-64) • Red Hat Linux Enterprise Linux 5 (on x86-64) and Red Hat Linux Enterprise Linux Advanced Platform 5 (on x86-64) • Oracle Enterprise Linux (on x86-64) distributed through the Oracle Unbreakable Linux program. • SUSE Linux Enterprise Server 9 (on x86-64) • SUSE Linux Enterprise Server 10 (on x86-64) • HP-UX 11i v2 (on Intel Itanium) • Mac OS X
Web browser	For UNIX and Linux operating systems: • Mozilla 1.7 • Firefox 2.0 For Mac OS X: • Safari 3.1.1 (Web Reporter only) For iPhone: • iPhone-packaged Safari browser (Web Reporter only) At a minimum, you should have one of the following for a Windows operating system: • Microsoft Internet Explorer version 6.0 SP1, 6.0 SP2, or 7.0 • Firefox 2.0
Browser resolution	Minimum resolution for the monitor is 800 x 600 or higher with 256 color palette minimum, but the recommended resolution is 1024 x 768 or higher.
Spreadsheet export application	Microsoft Excel or other spreadsheet application that supports the CSV file type.
PDF viewer (for viewing and exporting PDF documents)	Adobe Acrobat Reader versions 6, 7, 8, or 8.1.
Adobe Flash Player	Adobe Flash Player 9.0 or higher

2.2 Obtaining Access

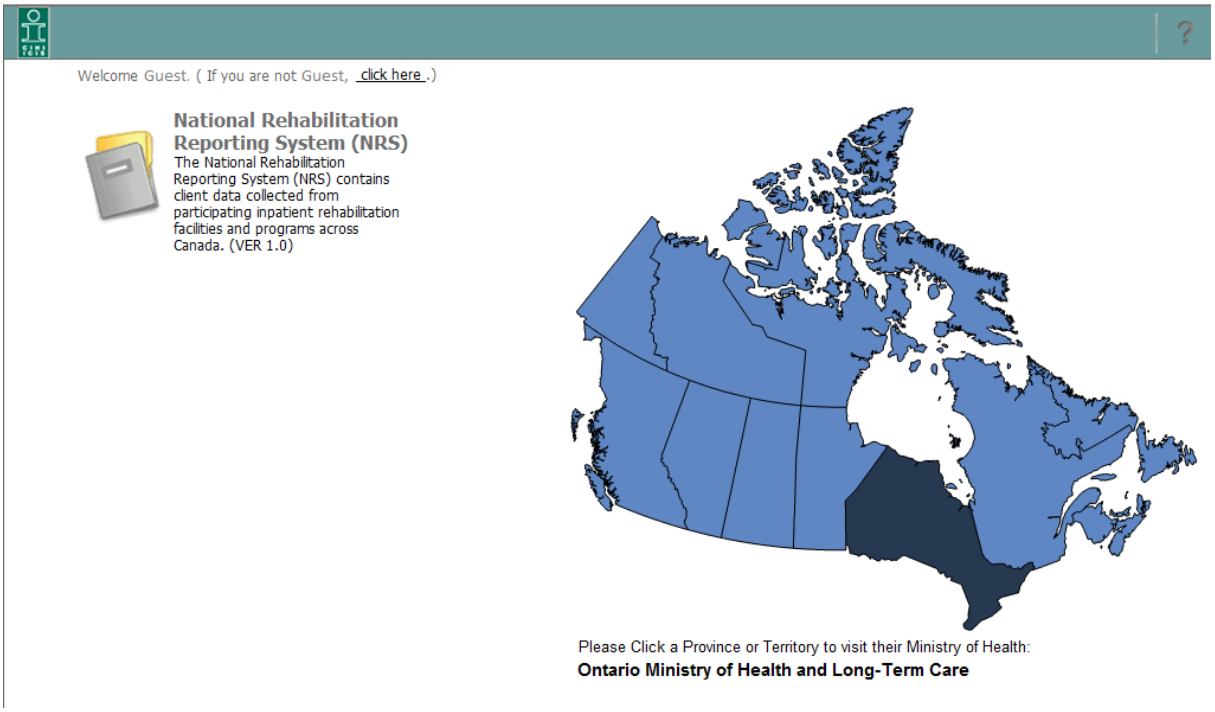
The NRS eReports system is restricted to authorized users. Before you can view the reports, a CIHI Client Services profile must be created and NRS eReports access granted to that account. Please write to nrs@cihi.ca if you require access. Please note that all requests for access must be received from the facility's Facility Coordinator, as listed on the Facility Profile.

2.3 Logging in From the CIHI Website

To get to the NRS eReporting system:

1. Go to www.cihi.ca and click on Applications in the top menu bar.
2. Click eReporting.
3. Enter your Client Services username and password and click the Login button.
4. The eReporting Terms and Conditions page will appear. Please review the terms of the agreement. You must click on "I Agree" to proceed.
5. You will now see the eReporting Gateway Page/Projects Page. This page provides links to all of the different eReporting databases to which you have access (MIS, CCRS, NACRS, etc.). If you only have access to NRS eReporting, then this is the only link that you will see.

Figure 2.1 The eReporting Gateway Page. User with access to the National Rehabilitation Reporting System only.


Welcome Guest. (If you are not Guest, click here .)
National Rehabilitation Reporting System (NRS)
The National Rehabilitation Reporting System (NRS) contains client data collected from participating inpatient rehabilitation facilities and programs across Canada. (VER 1.0)
Please Click a Province or Territory to visit their Ministry of Health:
Ontario Ministry of Health and Long-Term Care

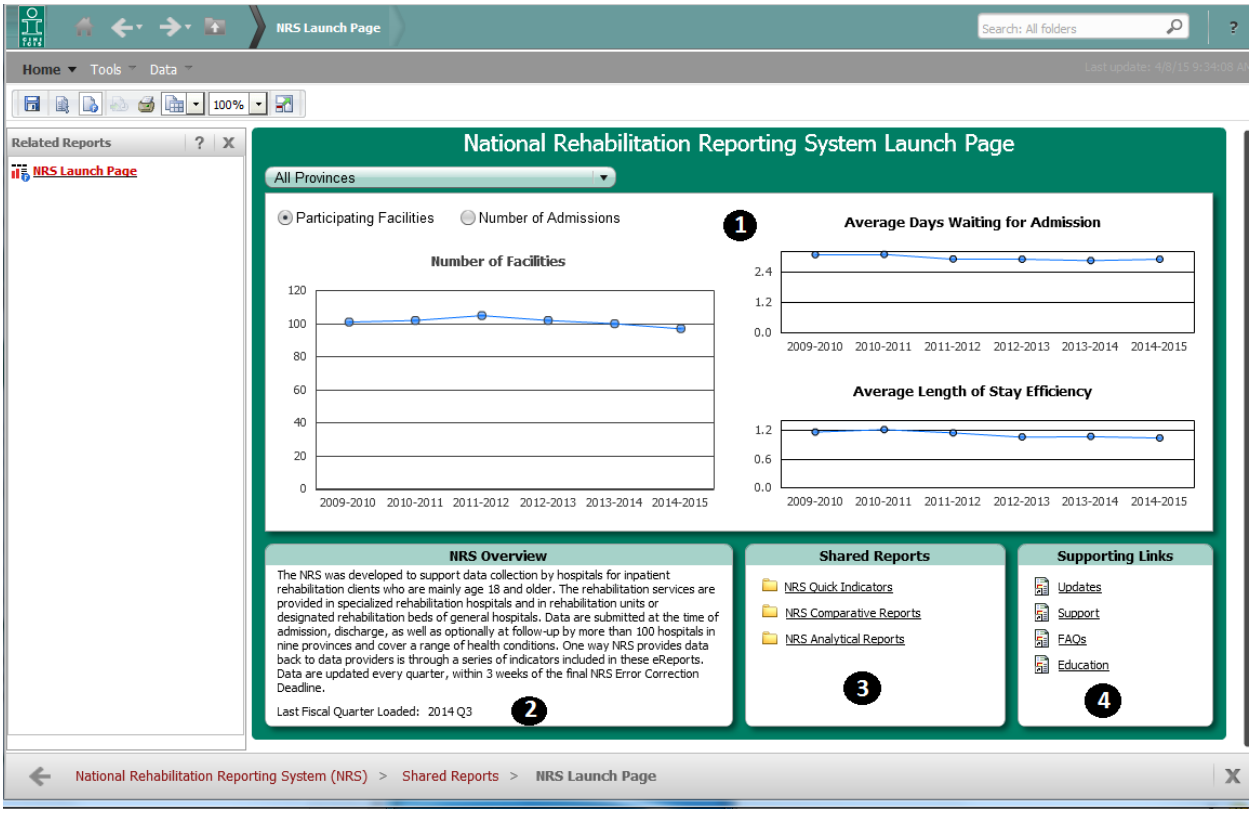
6. Click the National Rehabilitation Reporting System (NRS) link to continue.
7. You will be directed to the NRS eReports Launch Page, which is described in the next chapter.

3 NRS eReports Launch Page

3.1 Overview

The first page that you encounter once you have successfully logged in to CIHI eReports system and selected the NRS eReports is called the Launch Page (Figure 3.1).

Figure 3.1 Example of the NRS eReports Launch Page


NRS Launch Page
Search: All folders
Home
Tools
Data
100%
Related Reports
NRS Launch Page
National Rehabilitation Reporting System Launch Page
All Provinces
Participating Facilities
Number of Admissions
1
Number of Facilities
Average Days Waiting for Admission
Average Length of Stay Efficiency
2009-2010
2010-2011
2011-2012
2012-2013
2013-2014
2014-2015
NRS Overview
The NRS was developed to support data collection by hospitals for inpatient rehabilitation clients who are mainly age 18 and older. The rehabilitation services are provided in specialized rehabilitation hospitals and in rehabilitation units or designated rehabilitation beds of general hospitals. Data are submitted at the time of admission, discharge, as well as optionally at follow-up by more than 100 hospitals in nine provinces and cover a range of health conditions. One way NRS provides data back to data providers is through a series of indicators included in these eReports. Data are updated every quarter, within 3 weeks of the final NRS Error Correction Deadline.
Last Fiscal Quarter Loaded: 2014 Q3
2
Shared Reports
NRS Quick Indicators
NRS Comparative Reports
NRS Analytical Reports
3
Supporting Links
Updates
Support
FAQs
Education
4
National Rehabilitation Reporting System (NRS) > Shared Reports > NRS Launch Page

The NRS eReports Launch Page is divided into four regions, one that occupies the upper half of the page and three that occupy the lower half of the page, as follows:

❶ **(Top half)** displays some data that is of common interest to NRS facilities. The user may alter which data is visible through use of an associated pull-down menu and radio button.

❷ **(Lower left)** contains a brief overview of the NRS and displays the date of the most recent data update.

❸ **(Lower middle)** provides links to folders containing the three main types of reports available: Quick Indicators, Comparative Reports and Analytical Reports.

❹ **(Lower right)** includes NRS eReporting reference documents, as well as four links:

- **Updates:** contains announcements regarding new features, new reports, service interruptions, data uploads, etc.
- **Support:** offers contact information for inquiries about the NRS eReporting information and products
- **FAQs:** offers frequently asked questions and answers to those questions
- **Education:** offers additional training, help and NRS-specific guidance

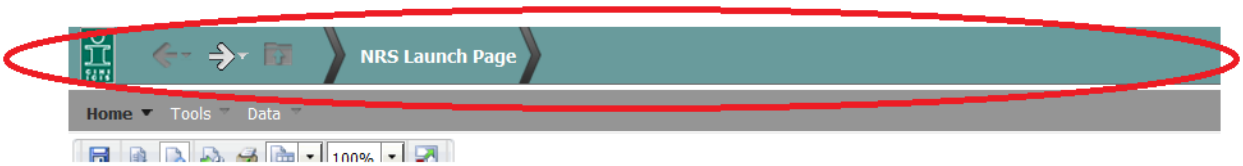
The Launch Page also contains a navigation bar, located at the top of the page, which allows you quick access to a variety of NRS eReports folders and tools. This navigation bar also includes Back and Forward navigation buttons. These aspects are described in the next chapter of this guide.

4 Folders, Navigation and Action Toolbars

Within all aspects of the NRS eReports, navigation and action toolbars are displayed and some toolbars are more permanent than others. The Navigation toolbar at the top of the screen will be displayed at all times throughout eReports.

At the top of all NRS eReports screens, you will find a navigation toolbar (Figure 4.1). A brief description of the items found in the navigation toolbar is provided below. Report folder screens also include an action toolbar; this is discussed in *Section 4.11*.

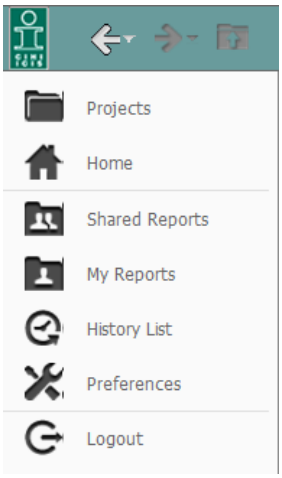
Figure 4.1 The navigation toolbar appears at the top of each NRS eReports page.



4.1 CIHI Projects Dropdown Menu

The CIHI logo located in the upper left corner of the screen is a dropdown menu giving you access to project folders and reports. Click the logo to expand the menu.

Figure 4.2 The CIHI Projects Dropdown Menu expanded.



4.2 Projects

Select the Projects option from the CIHI Projects Dropdown Menu to access the eReporting Gateway Page/Projects Page at any time.

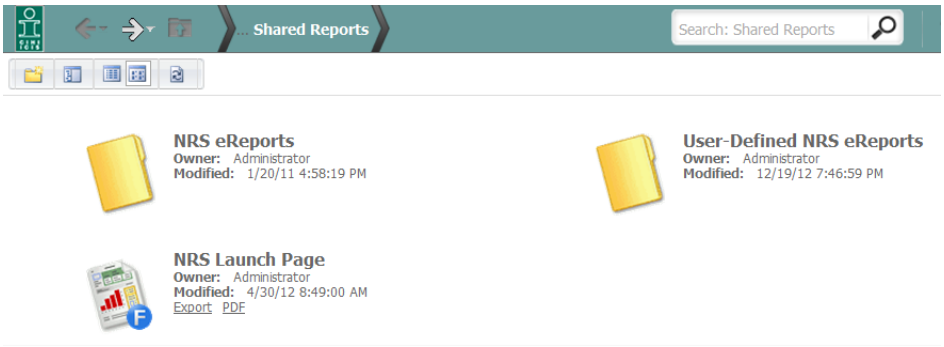
4.3 Home

Select the 'Home' option from the CIHI Projects Dropdown Menu to access the NRS Launch Page at any time.

4.4 Shared Reports

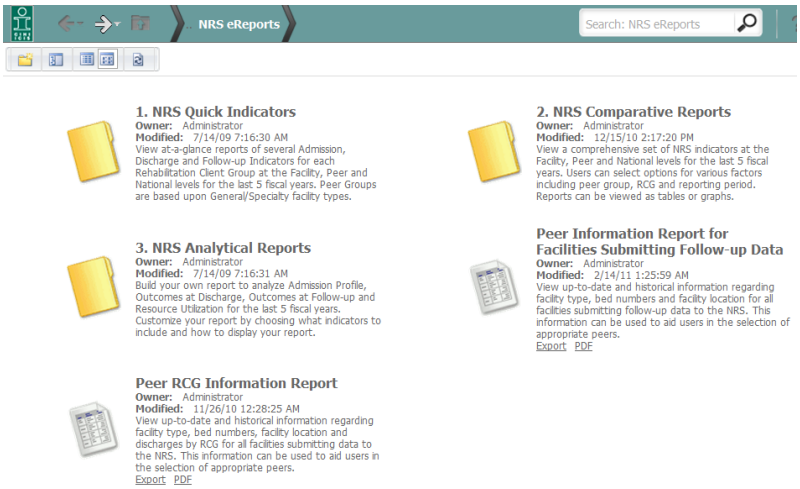
Select the 'Shared Reports' option from the CIHI Projects Dropdown Menu to access the Shared Reports folder (Figure 4.3), which contains a link to the "NRS eReports" folder, a "User-Defined NRS eReports" folder, and a link to the Launch Page.

Figure 4.3 The Shared Reports Folder



From the Shared Reports folder, all of the NRS eReports are accessed via the NRS eReports folder (Figure 4.4). This folder contains all three report options that are available in the NRS eReports system, as well as two Peer Information Reports. The NRS eReports folder is where you will go to create new reports. To view a sitemap of the NRS eReports folder, refer to Appendix A.

Figure 4.4 The NRS eReports Folder


NRS eReports
Search: NRS eReports
1. NRS Quick Indicators
Owner: Administrator
Modified: 7/14/09 7:16:30 AM
View at-a-glance reports of several Admission, Discharge and Follow-up Indicators for each Rehabilitation Client Group at the Facility, Peer and National levels for the last 5 fiscal years. Peer Groups are based upon General/Specialty facility types.
2. NRS Comparative Reports
Owner: Administrator
Modified: 12/15/10 2:17:20 PM
View a comprehensive set of NRS indicators at the Facility, Peer and National levels for the last 5 fiscal years. Users can select options for various factors including peer group, RCG and reporting period. Reports can be viewed as tables or graphs.
3. NRS Analytical Reports
Owner: Administrator
Modified: 7/14/09 7:16:31 AM
Build your own report to analyze Admission Profile, Outcomes at Discharge, Outcomes at Follow-up and Resource Utilization for the last 5 fiscal years. Customize your report by choosing what indicators to include and how to display your report.
Peer Information Report for Facilities Submitting Follow-up Data
Owner: Administrator
Modified: 2/14/11 1:25:59 AM
View up-to-date and historical information regarding facility type, bed numbers and facility location for all facilities submitting follow-up data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF
Peer RCG Information Report
Owner: Administrator
Modified: 11/26/10 12:28:25 AM
View up-to-date and historical information regarding facility type, bed numbers, facility location and discharges by RCG for all facilities submitting data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF

The Shared Reports folder also contains a User-Defined NRS eReports shared-access folder which permits users to create, save, and share reports with other NRS eReports users.

4.5 My Reports

Select the My Reports option from the CIHI Projects Dropdown Menu to access the My Reports folder, which contains reports that you, specifically, have created and saved. Sub-folders can also be created here to organize your reports. Reports in this folder are specific to your profile and are not accessible to other users. The My Reports folder may be convenient if you have certain reports that you create and access regularly—if they are saved here, you won't have to start from scratch each time.

4.6 History List

Select the History List option from the CIHI Projects Dropdown Menu to access the History List folder. The folder contains a listing of all of the reports that you have created and explicitly added to the History List. You can add reports to the History List by clicking the Add to History List link on the Wait Page or on the Home drop-down menu on the Report screen. Reports in the History List are specific to your profile and are not accessible to other users. Reports listed in this folder may be quickly viewed, printed and/or exported.

The History List also displays messages about reports that you have created or are in the process of creating (provided that they have been explicitly added to the History List). Each message shows the status of a report and other identifying information, such as the report name and the date and time at which the report was created. NRS eReports stores reports in a cache, allowing for their quick retrieval from the History List. Reports do not remain in the History List indefinitely. The number of reports that each user can have in the History List and the length of time that they remain there are controlled by the CIHI administrator.

What Can I Do With Reports in the History List?

The main History List page displays a list of all reports currently available for interaction. The reports are presented in a table with four column headings:

Name

The Name column lists the report name as a hyperlink to the report data. If the report was executed successfully, clicking on this link will open the report so that you may interact with the data. If the report did not execute, an error message will be displayed.

Status

The Status column indicates whether the report was executed successfully or not. "Ready" means the report is ready for viewing. "Error" means an error occurred during the execution of the report. The message: "*Executing SQL*" means that the report is still executing and is not yet available for viewing.

Message Creation Time

The Message Creation Time column indicates the last date and time the History List report information was updated. The time displays as Eastern Time unless you have indicated another time zone in the NRS eReports Preferences area (see Section 4.4).

Remove

The Remove column allows you to remove reports from your History List. Select the check box for the report you want to remove and click the Remove column heading. You should routinely remove reports that you no longer need to access instantly in order to free up server space.

Additionally, each report is listed with the following four icons:

Export

The Export icon gives you one-click access to export the report in your choice of formats. Click on the icon to begin the export process.

PDF

The PDF icon gives you one-click access to generate a PDF version of the report. Click on the icon to begin the PDF-creation process.

Details

The Details icon (that is, the blue circle with an "i" in it) opens a new page that provides you with additional details about that report.

Rename

The Rename icon allows you to change the name of that particular report in the History List.

How to use the History List:

1. Navigate to the History List.
2. From here you have several options:
   a. Remove a particular report: Check the box to the right of the report of interest and click Remove.
   b. View a report's details: Click on blue information icon.
   c. Export a report as a PDF document: Click the PDF icon.
   d. Export a report as an Excel, HTML or plain text document: Click the Export icon.
   e. View a report: Click the report name hyperlink.
   f. Rename a report: Click the Rename icon and then give the report a new name.

4.7 Preferences

Select the Preferences page to access user settings and preferences. This page allows you to customize how your NRS eReports system appears and behaves. This feature is similar to the Options menu item in many Microsoft programs. Note that many of the available options are designed for advanced users only.

The left side of the Preferences page provides links to all categories of user preference parameters. To apply any changes you make, simply click on the Apply button at the bottom of the page. You have the option of making changes to the NRS eReports environment specifically or to all of the eReports environments you have permission to access.

The following are Preferences categories:

General

Change the default page that appears when you log in and select your time zone.

Folder browsing

This feature is currently deactivated for NRS eReports users.

Grid display

Change the default Autostyle that is applied when a report opens, as well as the maximum number of rows and columns that will appear on one page.

Export reports

Change the default export format for grids, graphs and documents.

Print reports (PDF)

Create custom headers and footers, change PDF orientation and reset the default scale for PDFs.

Drill mode

Select whether to keep parent attributes or thresholds when drilling in a report.

Prompts

Choose whether to view report prompts all on one page or on separate pages.

Report services

Customize advanced display properties.

Security

Set preferences upon logout—includes pending requests and History List behaviour.

How to work with user preferences:

1. Navigate to the Preferences page.
2. From the left-hand side of the screen, select the type of preference to manipulate (for example, General, Folder browsing, Printing, Grid display).
3. On a particular preference page, define the new preference modifications.
4. Click Apply.
5. Repeat steps 2 through 4 until all desired changes have been made.

4.8 Search Box

This tool allows users to search for existing reports that are saved under Shared Reports or My Reports. Advanced search options include the ability to specify report type, date created or report owner. The following two subsections describe the two types of searching that are possible in NRS eReports.

Quick Search

A simple search is performed by typing the word or phrase you are looking for in the Quick Search box, located in the upper right-hand corner of every page. The search returns a list of all objects that match the search string. You can then interact with the object the way you would in any other area of NRS eReports (for example, open a folder or execute a report).

To perform a quick search:

1. Enter the search keyword(s) in the Quick Search textbox.
2. Click the Submit Search icon (that is, the magnifying glass icon to the right of the search box).
3. Interact with the search results.

Advanced Search

An advanced search allows for additional search criteria beyond a simple text string.

To perform an advanced search:

1. Navigate to the Search Page by clicking on the magnifying glass icon to the right of the search box.
2. Type in your desired keyword(s) or phrases.
3. Define the search criteria: Location, Object Type, Owner, Date Created/Modified, etc.
4. Enter a brief description (optional).
5. Click the Search button.
6. Interact with the search results.

4.9 Help

Help provides you with access to available help files and how-to demonstrations Chapter 15 for more information about getting additional help with NRS eReports.

4.10 Logout

Allows you to log out of your NRS eReports session.

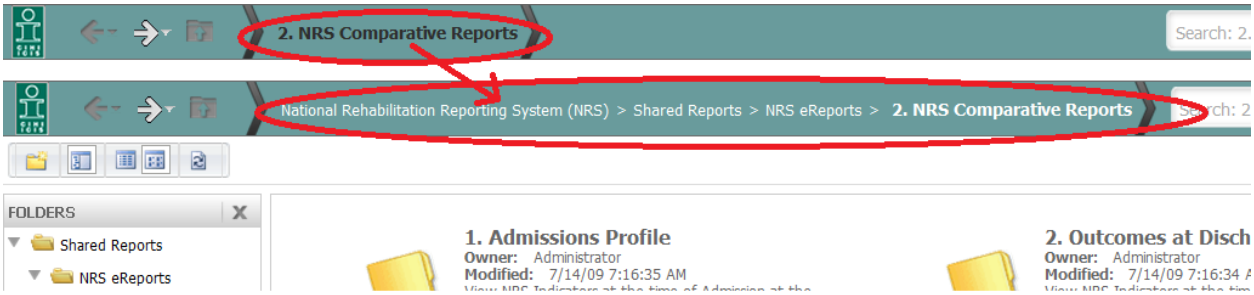
4.11 Current Location (“Trail of Breadcrumbs”) Toolbar

You can always see your location within NRS eReports by clicking on the title of the report at the top of the screen. Upon clicking the title, the Current Location (or “trail of breadcrumbs”) is expanded and displayed (see Figure 4.5). This toolbar lists the directory path of the page that you are currently viewing. Each of the folder names in this trail of breadcrumbs is a hyperlink that will take you to that folder upon clicking. For instance, if you wanted to navigate up a level within the folder hierarchy, you could click on the appropriate folder name in the toolbar to take you there.

This toolbar also contains Back and Forward buttons that enable you to navigate to locations or reports you have been to previously, and an Up button that will move you from your current folder to the next level up in the folder structure.

Figure 4.5 Expansion of the report title to Current Location (“Trail of Breadcrumbs”) Toolbar

In this example, the user is viewing the NRS Comparative Reports folder, which is located inside the NRS eReports folder, which is located inside the Shared Reports folder.


2. NRS Comparative Reports
National Rehabilitation Reporting System (NRS) > Shared Reports > NRS eReports > 2. NRS Comparative Reports
FOLDERS
Shared Reports
NRS eReports
1. Admissions Profile
Owner: Administrator
Modified: 7/14/09 7:16:35 AM
2. Outcomes at Disch
Owner: Administrator

4.12 Action Toolbar

When viewing the contents of a folder (for instance, Shared Reports folder or My Reports folder), you will see a small toolbar to the left just beneath the trail of breadcrumbs toolbar (see Figure 4.7).

Figure 4.7 The Action Toolbar

Icons (from left to right):

New Folder—Create a new folder within the present location.

Tree view—Display navigation tree.

Details—Display contents descriptions.

Icon view—Display folder contents in icon view.

Refresh—Refresh the folder contents.

The actions available in this toolbar will vary depending on what is being viewed in the main section of the screen. See Section 7.2 Toolbar for other actions that may be available in eReports.

Below the Action Toolbar, the user can navigate using the tree structure. The tree structure allows you to retain the folder structure in a panel on the left-hand side of your screen while viewing the folder contents in a panel on the right. This may assist you in gaining a better understanding of the folder structure and in reducing the amount of time required to find a particular report.

5 NRS eReports Terminology

This chapter contains some terms to review before you begin creating reports. It may help to refer back to these terms when you start to look at a few reports. (You can also find more about these terms in Appendix B—NRS Glossary.)

5.1 Report

A report is the outcome of analytical queries. The knowledge gained from reports can be used in decision-support activities. A report is created by querying a CIHI data mart containing Canadian health data (such as the National Rehabilitation Reporting System).
Reports can be formatted in three ways:

1. **Grid—**report data is displayed in a table
2. **Graph—**report data is displayed on a graph
3. **Grid-and-graph—**report data is displayed in **both** a data table and on a graph

You can switch between these three formats by using the Home drop-down menu or the appropriate toolbar buttons. The formatting options that are available to you in each of these formats are different and the visible toolbars and menu items will automatically update as you switch between them.

5.2 Prompts

Prompts are used to dynamically modify the content of a report at run time. When creating a report, you will be prompted for information that will tell the application what kind of report to produce and which data to include. For example, you might be prompted to select a particular outcome to look at or a time period on which to focus (for example, Fiscal Year = 2010–2011) or to select the facilities with which you want to compare your own.

5.3 Attributes

Attributes allow for the presentation of data by categories. They are added to reports to allow data to be summarized at varying levels of detail. For example, the attribute “sex” might be added to a report to allow data from male and female clients to be shown separately. The attributes that appear in a particular report depend on the purpose of the report. A report designed to show client data as it relates to age, for instance, will necessarily include an age-related attribute, such as “admission age group.” In the NRS Quick Indicators and NRS Comparative Reports, the attributes that are present in each report are pre-chosen by CIHI. In NRS Analytical Reports, however, each user has the freedom to decide which attributes are included in each report.

Attributes are typically displayed in the rows or page-by axis of NRS eReports, and are also sometimes used as selection prompts (for example, RCG prompt). That is, some of the attributes that can be displayed in the report are also used to select which data is used in that report. For example, a user could use the “bed grouping” attribute to choose to include only data from small facilities in the report.

Available attributes vary depending on report type. Table 13.1 indicates the attributes that are available in the various NRS eReports. Definitions, descriptions and interpretation considerations for each attribute are listed in Section 13.2.

5.4 Rehabilitation Client Groups

Within the NRS, a client is categorized into 1 of 17 health condition groups, known as Rehabilitation Client Groups (RCGs). The RCG selected for a particular client is based on the condition that best describes the primary reason for the client's admission to the inpatient rehabilitation unit or facility—for example, stroke or limb amputation. Some RCGs are further divided into subgroups in order to facilitate more specific analysis of groups that contain large numbers of rehabilitation clients—for example, left- and right-sided strokes. Some NRS eReports contain only the 17 major groups, while others include subgroups. For more information about RCGs, refer to Chapter 13.

5.5 Rehabilitation Patient Groups

The NRS now includes a case mix grouping methodology known as the Rehabilitation Patient Group (RPG) methodology. The RPGs have cost weights associated with them and explain variance in length of stay and other NRS variables of interest to a greater extent than the FIM–Function Related Groups (FIM-FRGs) and other methodologies based on the FIM® instrument. They represent a natural transition to a Canadian grouping methodology for inpatient rehabilitation. For more information about RPGs, refer to Chapter 13.

5.6 Metrics

This term refers to the numerical data, such as percentages (%), counts (N), or a variety of summary statistics (for example, average, median, standard deviation), that summarize each of the demographic, clinical and administrative indicators available in NRS eReports (for example, number of clients, length of stay, Total Function Score). A full listing and description of available metrics is provided in Chapter 14. Terms that relate to NRS metrics are described below.

Average (Mean)

For the purposes of the NRS, the terms "average" and "mean" are used interchangeably. Averages (means) are calculated by adding the individual values (for example, FIM® instrument scores, days waiting for admission) in a group, and dividing that sum by the number of values in the group. It is sometimes called the "arithmetic mean" of a set of values.

Example: Five Total Function Scores: 54, 67, 83, 100 and 120
Average (Mean) Total Function Score: (54+67+83+100+120) / 5 = 84.8

Median

The median represents the middle value in a group when the values are arranged in an increasing order. If there is an even number of values, the median is the average of the middle two values.

Example: Five Total Function Scores: 54, 67, 83, 100 and 120. The middle-ranked value, 83, is the median.

Note that the median is not the same as the mean, though these two values may, on occasion, be the same for a particular data set. When the mean and median values are the same, the distribution of the values is normal or symmetrical. If the mean is higher than the median, then the data is skewed to the right and there may be outliers in the upper range or higher values. If the mean is lower than the median, then the data is skewed to the left and there may be outliers in the lower range or lower values.

Standard Deviation

Standard deviation, defined as the square root of the variance of an indicator, may be used to determine the percentage of observations that fall between the mean and any given value. A high standard deviation indicates that many observations are far from the mean, while a low standard deviation indicates that many observations are clustered around the mean.

Percentiles

Some reports provide percentile metrics, namely 25th and 75th percentiles. A percentile is the value of a variable below which a certain percent of observations fall. So the 25th percentile is the value below which 25% of the observations may be found. (The 25th percentile is also sometimes known as the “first quartile”; the 75th percentile as the “third quartile.”)

Facility, Peer and All

Metrics in the NRS eReports are typically provided for each of three levels—Facility, Peer and All—so that facilities can compare their results with other participants in the NRS. Each of these levels of metrics is described below:

Facility: The indicators are calculated using data submitted by the facility for which the report is being generated.

Peer: Peer groups in NRS eReports can be defined in any of three different ways:

i. **By Facility Type (General or Specialty)—**A peer group may be chosen by selecting a desired Facility type. Each facility denotes itself as General or Specialty prior to beginning participation in the NRS. Refer to Appendix B for definitions of General and Specialty facility types.

ii. **By Number of Beds—**A peer group may be chosen by selecting facilities that have a certain number of rehabilitation beds. Users choosing this selection method are able to pick from a list of size groupings.

iii. **By Facility Name/Facility Number**—A peer group may be chosen by selecting one or more facility names or numbers to add to the group.

Note: Quick Indicator reports do not allow you to choose a peer group. Instead, facility type is the only peer group available, and the selection of General or Specialty is based on the designation of the facility that is the focus of the report. Only Comparative Reports and Analytical Reports provide users with the ability to choose their peer groups using the above-mentioned criteria. The Peer Information Reports available in the NRS eReports folder may assist users in deciding which other facilities best represent their peers.

All: This column provides indicator values for all facilities participating in the NRS across Canada. The NRS is a voluntary reporting system and therefore the data presented in the "All" column is not necessarily representative of all inpatient rehabilitation services in Canada. The number of facilities participating in the NRS can be determined from the graphs that are presented on the NRS eReports Launch Page.

These three levels of metrics are sometimes further split into two columns: N, which refers to a number or count, and percent, which is the percentage of the total column that N represents. When N is reported by itself, it refers to the number of clients or the number of days, for instance. When N and percent are both reported in a row, N is the number of client records included in the numerator for the percentage calculation. Refer to individual metric definitions in Chapter 14 for more details on specific calculations.

A Note About Rounding

By default, mean, median and percent values in NRS eReports are rounded to the nearest single decimal place. Due to rounding of values, an indicator's individual percentage value may not exactly add up to the total percentage at the bottom of the column, but it is generally within 1% to 2% of the total percentage.

A Note About Zero Versus Null Percentages

You may encounter instances in which a percentage metric is displayed as zero (that is, 0.0%) and other instances in which no percentage is shown at all for a particular level of attribute (that is, there is an empty cell in the table). The former indicates that the numerator in the percentage calculation is zero or blank but that there is a non-zero value for the denominator. Alternatively, if there is no denominator value, then the resulting percentage will be shown as a blank space (that is, a null value) rather than a zero.

For example, if "Clients Reporting Improved Health Status, Count" was zero but "Clients Followed-Up, Count" was not zero then the value calculated for "Clients Reporting Improved Health Status, Percent" will be 0.0%. If, however, the value for "Clients Followed-Up, Count" was also zero, then the calculated percentage will be a null value and will be displayed as a blank cell or a cell with a dashed line.

5.7 Drilling

"Drilling" refers to looking at your data at a different level of analysis. For instance, you might "drill down" to look at more specific groupings of data. If data is shown for a particular fiscal year, for example, you might drill down to view the data at the level of reporting periods (that is, quarters). Alternatively, you could drill down from national-level data to the provincial level. "Drilling up" refers to looking at less specific, larger groupings of data. For instance, you might choose to collapse data across various age groups if age was not an important factor in your analysis. In this case, you are drilling up from the level of age groups. Likewise, if you were only interested in overall number of clients requiring rehabilitation for a particular impairment, you might drill up from the level of sex (that is, collapse data across both sexes). For more information about drilling, refer to Chapter 7.

5.8 Filtering

A filter sifts the data in your data source and presents you with the specific information you request. When you analyze a report, it is important to understand the filter conditions that are being applied to the report. This allows you to better understand what data is being excluded from the results.

You can see filter definitions and apply your own filter in several ways:

Look at the definition of a report's filter: To see the filtering conditions the report designer applied to the report, select Report Details from the Tools menu (refer to Chapter 7).

Create a View filter: You can apply a filter to the current instance (or view) of a report using a View filter. The View filter limits the data being displayed on a report without re-executing the report against the data source (refer to Chapter 7).

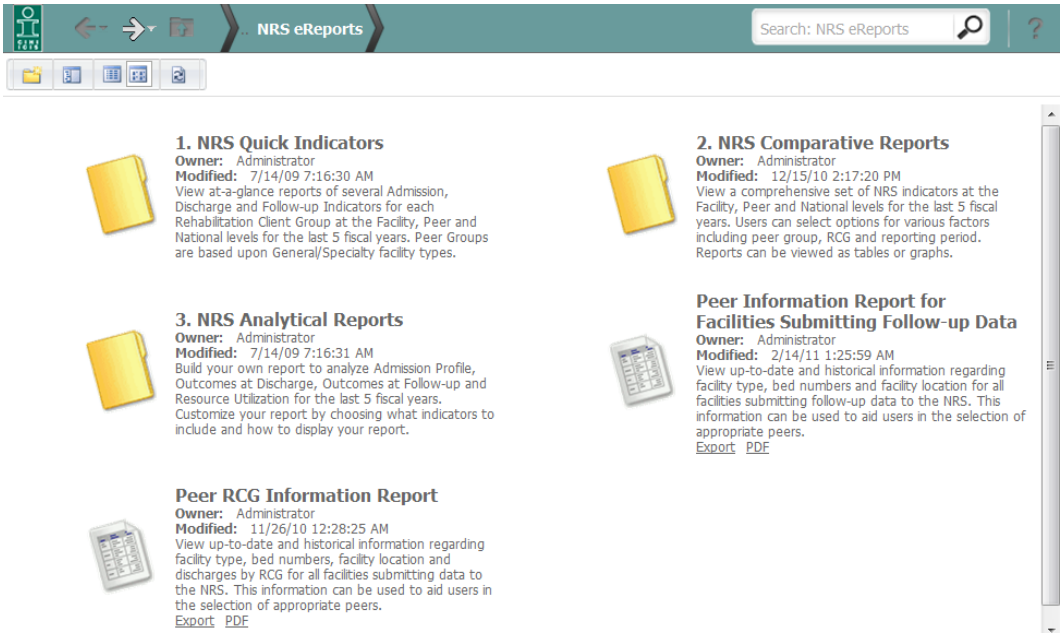
Display or hide rows and columns: You can narrow your view of a report to only the rows and columns you want to see. This is achieved using the Filter on Selections feature (refer to Chapter 7).

6 Creating Reports

6.1 Types of Reports Available

There are three main types of reports that can be created within the NRS eReports environment. All can be accessed from the NRS eReports folder, which is found in the Shared Reports folder. Each type is described briefly below and in greater detail in chapters 10 to 12.

Figure 6.1 The NRS eReports Folder


NRS eReports
Search: NRS eReports
1. NRS Quick Indicators
Owner: Administrator
Modified: 7/14/09 7:16:30 AM
View at-a-glance reports of several Admission, Discharge and Follow-up Indicators for each Rehabilitation Client Group at the Facility, Peer and National levels for the last 5 fiscal years. Peer Groups are based upon General/Specialty facility types.
2. NRS Comparative Reports
Owner: Administrator
Modified: 12/15/10 2:17:20 PM
View a comprehensive set of NRS indicators at the Facility, Peer and National levels for the last 5 fiscal years. Users can select options for various factors including peer group, RCG and reporting period. Reports can be viewed as tables or graphs.
3. NRS Analytical Reports
Owner: Administrator
Modified: 7/14/09 7:16:31 AM
Build your own report to analyze Admission Profile, Outcomes at Discharge, Outcomes at Follow-up and Resource Utilization for the last 5 fiscal years. Customize your report by choosing what indicators to include and how to display your report.
Peer Information Report for Facilities Submitting Follow-up Data
Owner: Administrator
Modified: 2/14/11 1:25:59 AM
View up-to-date and historical information regarding facility type, bed numbers and facility location for all facilities submitting follow-up data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF
Peer RCG Information Report
Owner: Administrator
Modified: 11/26/10 12:28:25 AM
View up-to-date and historical information regarding facility type, bed numbers, facility location and discharges by RCG for all facilities submitting data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF

This folder contains the three main types of reports that can be created: NRS Quick Indicators, NRS Comparative Reports and NRS Analytical Reports. It also includes two Peer Information Reports that have been created to assist facilities in the picking of peers.

NRS Quick Indicators

Quick Indicators are the quickest and simplest type of reports to generate. They are “at-a-glance reports” of several admission, discharge and follow-up indicators. There are 10 Quick Indicator reports available—9 in graph form and 1 in table form. All nine graphs have identical properties, each reporting on a different indicator. The 10th report displays a table containing four data quality indicators. Reports present information based on facility, facility type (general or specialty) and desired fiscal year(s). Indicators are presented at the Facility, Peer and National (All) levels. You will be prompted only for your facility name and number in order to generate the report.

NRS Comparative Reports

Comparative Reports allow a bit more flexibility than Quick Indicator reports, but require slightly more time and effort to build, at least initially. They provide a comprehensive set of NRS indicators at the Facility, Peer and National (All) levels for the previous six fiscal years.

There are four categories of Comparative Reports:

i. Admission Profile reports;
ii. Outcomes at Discharge reports;
iii. Outcomes at Follow-Up reports; and
iv. Resource Utilization reports.

Each category includes up to seven different types of reports that can be generated (for example, Age at Admission, Functional Status at Discharge and Follow-up Living Setting). You can select options for various factors including peer group, Rehabilitation Client Group (RCG) and the reporting period. In most cases, reports can be viewed as tables or graphs.

NRS Analytical Reports

Analytical Reports are “build-your-own” reports that allow even greater flexibility but require a bit more time and effort to produce than the other two types of reports. As with Comparative Reports, you may select one of four categories. However, unlike Comparative Reports, Analytical Reports allow you to display data based on **any available attributes and metrics**.

How to Decide Which Type of Report You Want

The type of report that you choose to create will depend on a number of factors, including, for instance, the attributes and metrics that are available, how many prompts you want to answer on the Prompt screen, whether or not you want to be able to choose your peer group, and whether or not you want the ability to drill into the data. Below are some sample guidelines to assist your decision-making:

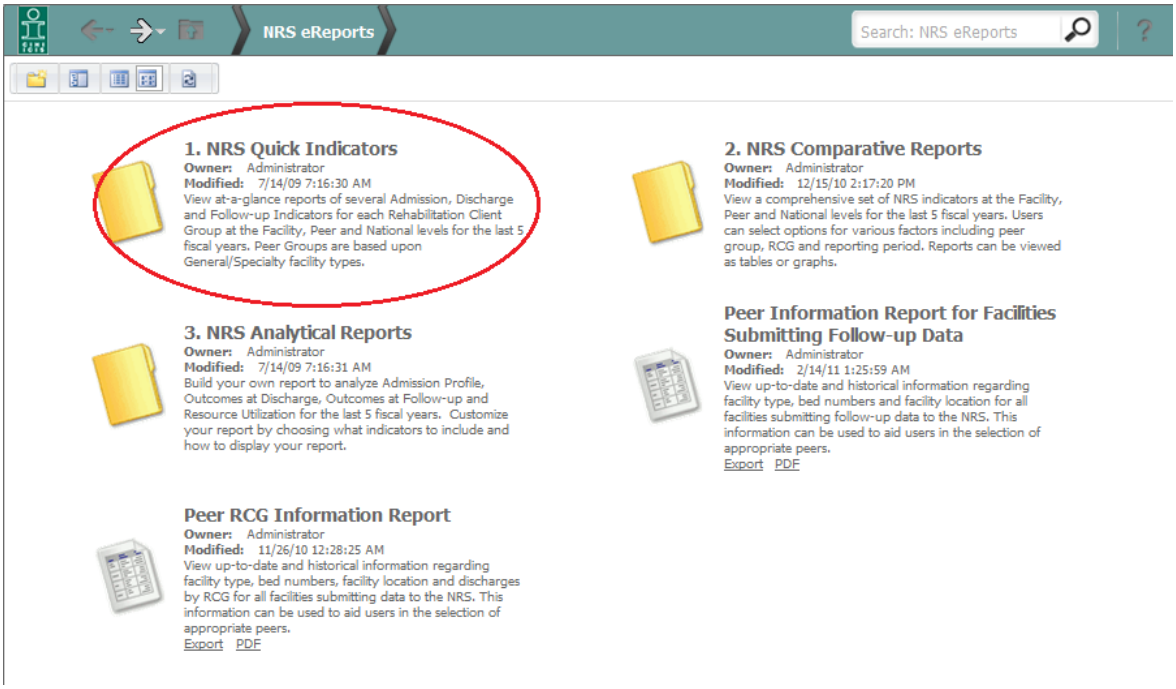
- For quick access to graphical information about common indicators, consider **NRS Quick Indicators**.
- To define your peer group and/or drill into data, consider **NRS Comparative Reports**.
- To have access to all possible metrics and attributes and thus have the greatest flexibility in creating reports, consider **NRS Analytical Reports**.

6.2 Creating NRS Quick Indicator Reports

To create a Quick Indicator report:

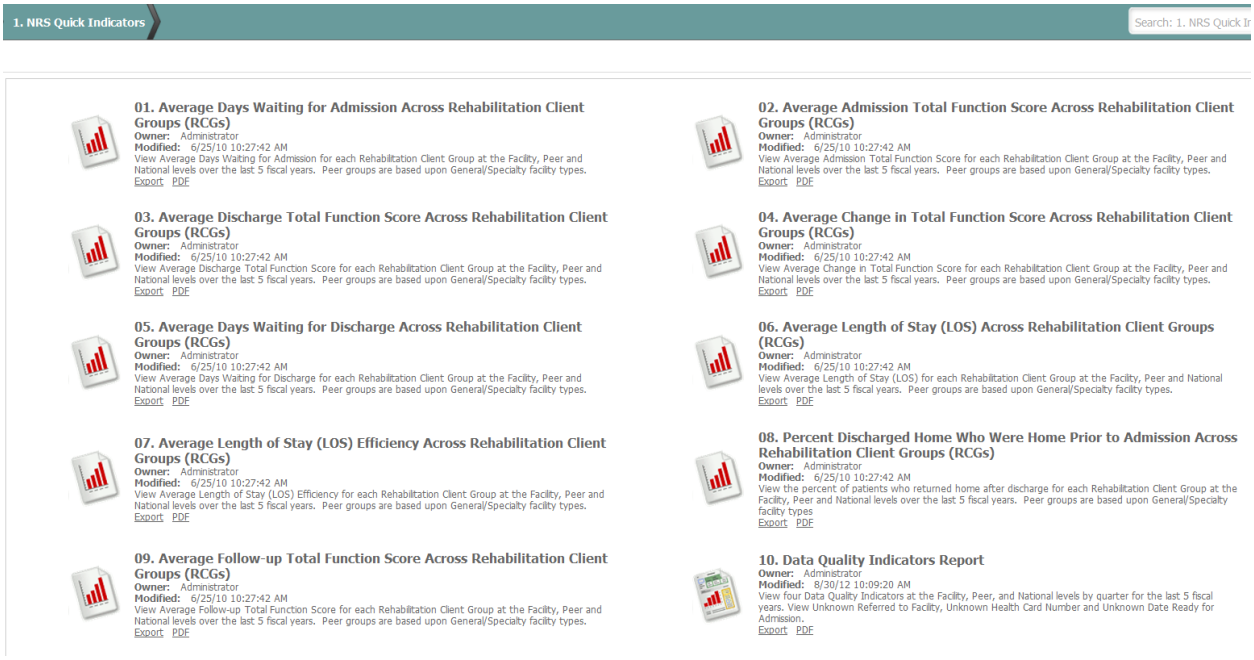
1. From the NRS eReports Launch Page (see Chapter 3) or the NRS eReports folder (see Section 6.1), click on NRS Quick Indicators.

Figure 6.2 NRS Quick Indicators can be accessed from the NRS eReports folder.


NRS eReports
Search: NRS eReports
1. NRS Quick Indicators
Owner: Administrator
Modified: 7/14/09 7:16:30 AM
View at-a-glance reports of several Admission, Discharge and Follow-up Indicators for each Rehabilitation Client Group at the Facility, Peer and National levels for the last 5 fiscal years. Peer Groups are based upon General/Specialty facility types.
2. NRS Comparative Reports
Owner: Administrator
Modified: 12/15/10 2:17:20 PM
View a comprehensive set of NRS indicators at the Facility, Peer and National levels for the last 5 fiscal years. Users can select options for various factors including peer group, RCG and reporting period. Reports can be viewed as tables or graphs.
3. NRS Analytical Reports
Owner: Administrator
Modified: 7/14/09 7:16:31 AM
Build your own report to analyze Admission Profile, Outcomes at Discharge, Outcomes at Follow-up and Resource Utilization for the last 5 fiscal years. Customize your report by choosing what indicators to include and how to display your report.
Peer Information Report for Facilities Submitting Follow-up Data
Owner: Administrator
Modified: 2/14/11 1:25:59 AM
View up-to-date and historical information regarding facility type, bed numbers and facility location for all facilities submitting follow-up data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF
Peer RCG Information Report
Owner: Administrator
Modified: 11/26/10 12:28:25 AM
View up-to-date and historical information regarding facility type, bed numbers, facility location and discharges by RCG for all facilities submitting data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF

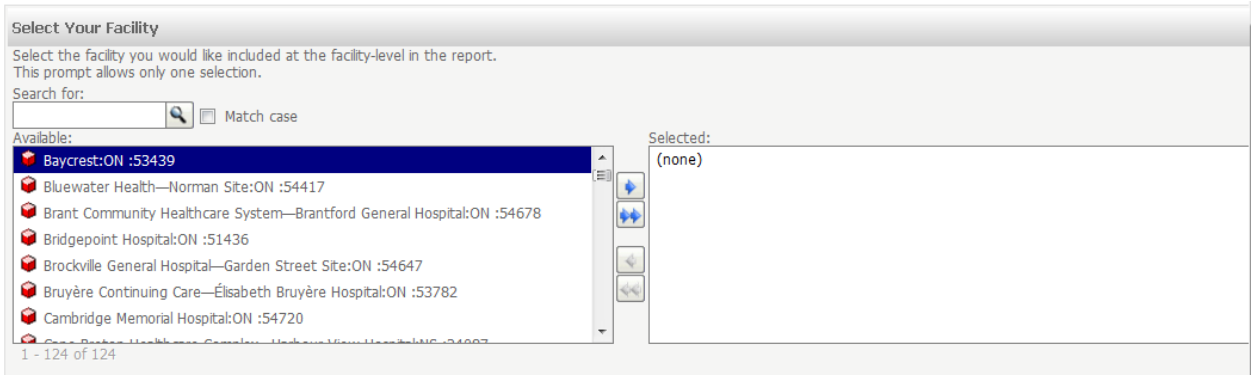
2. The Quick Indicators folder displays 10 report icons (9 reports in graph form and 1 in grid form). Each icon includes the name and a brief description of the report to be generated. Figure 6.3 shows the Quick Indicator reports that are available to you. For a more detailed description regarding interpretation of each Quality Indicator report, consult Chapter 10.

Figure 6.3 Example of the Quick Indicators Folder Containing 10 Quick Indicator Reports


1. NRS Quick Indicators
Search: 1. NRS Quick Ir
01. Average Days Waiting for Admission Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View Average Days Waiting for Admission for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types.
Export PDF
02. Average Admission Total Function Score Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View Average Admission Total Function Score for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types.
Export PDF
03. Average Discharge Total Function Score Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View Average Discharge Total Function Score for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types.
Export PDF
04. Average Change in Total Function Score Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View Average Change in Total Function Score for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types.
Export PDF
05. Average Days Waiting for Discharge Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View Average Days Waiting for Discharge for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types.
Export PDF
06. Average Length of Stay (LOS) Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View Average Length of Stay (LOS) for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types.
Export PDF
07. Average Length of Stay (LOS) Efficiency Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View Average Length of Stay (LOS) Efficiency for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types.
Export PDF
08. Percent Discharged Home Who Were Home Prior to Admission Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View the percent of patients who returned home after discharge for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types
Export PDF
09. Average Follow-up Total Function Score Across Rehabilitation Client Groups (RCGs)
Owner: Administrator
Modified: 6/25/10 10:27:42 AM
View Average Follow-up Total Function Score for each Rehabilitation Client Group at the Facility, Peer and National levels over the last 5 fiscal years. Peer groups are based upon General/Specialty facility types.
Export PDF
10. Data Quality Indicators Report
Owner: Administrator
Modified: 8/30/12 10:09:20 AM
View four Data Quality Indicators at the Facility, Peer, and National levels by quarter for the last 5 fiscal years. View Unknown Referred to Facility, Unknown Health Card Number and Unknown Date Ready for Admission.
Export PDF

3. Click on the name of the report that you wish to generate.
4. You will now be prompted for the **Facility** whose data you are interested in viewing. The facilities are listed in alphabetical order, and each contains its corresponding facility number. You can scroll through the list or conduct a search for the facility name or number using the Search box. (**Tip:** If you use the Search box, ensure that the Match Case tick-box is unchecked to provide you with maximum usability.) **You are only permitted to select one Facility for these reports.** Once you have found the desired Facility, either double-click on it or highlight it and press the arrow button (▶) to move it to the Selected box on the right. If you need to change your selection, the lower arrow button (◀) can be used to send your selection back to the Available box on the left.

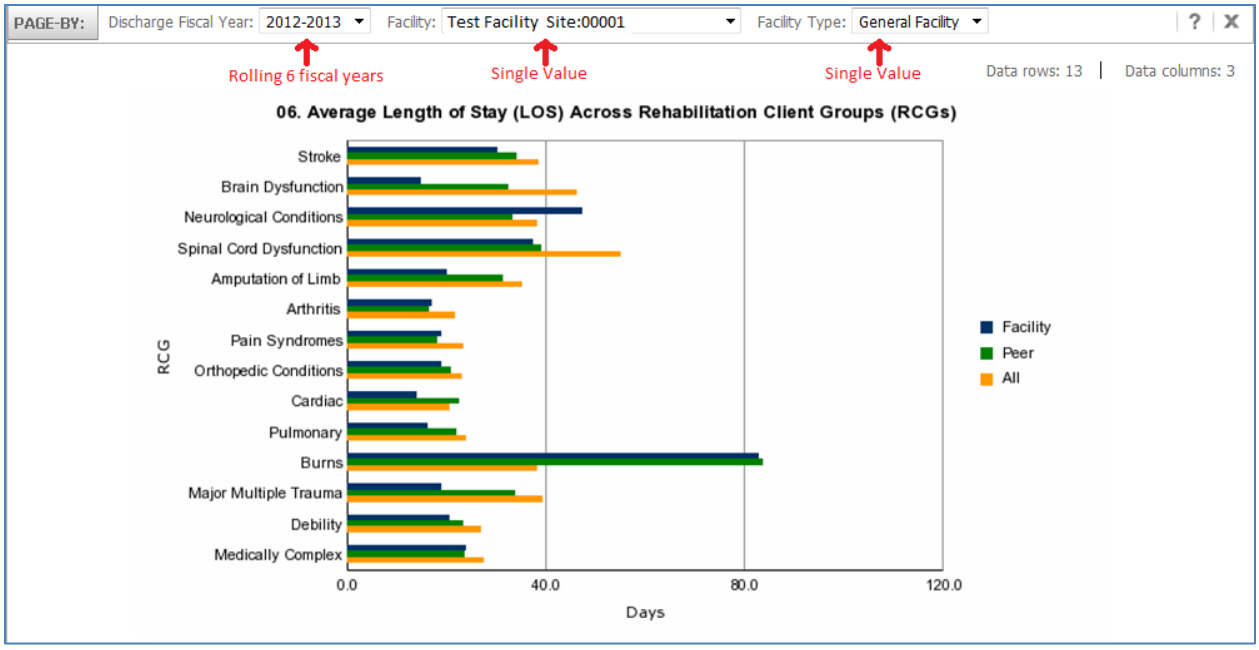
Figure 6.4 Facility Prompts User to Create Quick Indicator Reports


Select Your Facility
Select the facility you would like included at the facility-level in the report.
This prompt allows only one selection.
Search for:
Match case
Available:
Baycrest:ON :53439
Bluewater Health—Norman Site:ON :54417
Brant Community Healthcare System—Brantford General Hospital:ON :54678
Bridgepoint Hospital:ON :51436
Brockville General Hospital—Garden Street Site:ON :54647
Bruyère Continuing Care—Élisabeth Bruyère Hospital:ON :53782
Cambridge Memorial Hospital:ON :54720
1 - 124 of 124
Selected:
(none)

5. When the Selected box contains the desired Facility, press the Run Report button, located in the lower left-hand corner. While your Quick Indicator report is being created, you will see a "Wait Page" that provides you with some clickable options. See Section 6.6 for more information about the Wait Page.
6. Once the report has been created, you will see the Report screen. The Report screen, with all of its menus and toolbars, will allow you to modify how the data is displayed. Chapter 7 provides more information about how to modify your report using the tools provided on the Report screen, but briefly:
   a. From the Page-By boxes at the top of the report, you can select which fiscal year(s) you want to focus on. By default, the most recent fiscal year is shown. However, you may wish to include older data in your report.
   b. Results shown for the Peer comparison are based on the facility type, either General or Specialty, which corresponds to the displayed facility. These values are averages calculated from all NRS-submitting facilities that designate themselves as that particular facility type.
   c. Averages shown for the "All" comparison are based on the national average across all NRS-submitting facilities, regardless of designated facility type.
   d. Quick Indicator reports 1 to 9 permit drilling into the data from fiscal year to fiscal quarter. (See Section 7.7 for more information about drilling.)
7. Once the report contains the data that you are interested in and looks the way that you want, you may choose to export, save or print your newly created report. For details about these options, please refer to Chapter 8.

Chosen Facility name and associated facility type will be displayed in the Page-By boxes. You may change the value that is selected in the Fiscal Year Page-By box.

Figure 6.5 Example of a Graph-Formatted Quick Indicator Report



Chosen Facility name and associated facility type will be displayed in the report header. You may change the value that is selected in the Fiscal Year Page-By box.

Figure 6.6 Example of a Grid-Formatted Quick Indicator Report with Drill down Fiscal Year

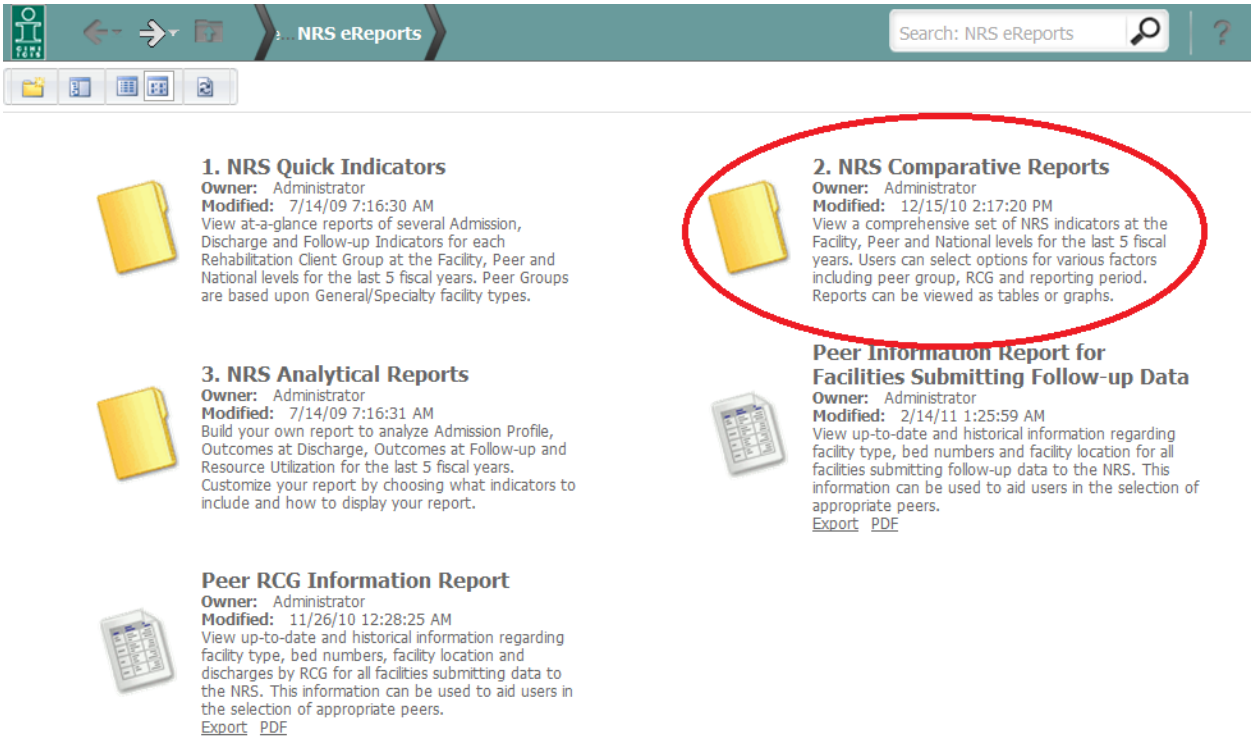
	Facility		Peer		National	
	N	%	N	%	N	%
2011-2012 Q3						
Unknown "Referred to Facility Number"	10		161	9.0%	256	8.3%
Unknown "Health Card Number"		0.0%	5	0.1%	13	0.1%
Unknown "Date Ready for Admission"	145		1,036	17.8%	1,228	12.9%
2011-2012 Q2						
Unknown "Referred to Facility Number"		0.0%	161	8.5%	237	7.6%
Unknown "Health Card Number"		0.0%	7	0.1%	16	0.2%
Unknown "Date Ready for Admission"	41		937	16.3%	1,169	12.6%

6.3 Creating NRS Comparative Reports

To create a Comparative Report:

1. From either the NRS eReports Launch Page (Chapter 3) or the NRS eReports folder (Section 6.1), click on NRS Comparative Reports.

Figure 6.7 NRS Comparative Reports can be accessed from the NRS eReports folder.


NRS eReports
Search: NRS eReports
1. NRS Quick Indicators
Owner: Administrator
Modified: 7/14/09 7:16:30 AM
View at-a-glance reports of several Admission, Discharge and Follow-up Indicators for each Rehabilitation Client Group at the Facility, Peer and National levels for the last 5 fiscal years. Peer Groups are based upon General/Specialty facility types.
2. NRS Comparative Reports
Owner: Administrator
Modified: 12/15/10 2:17:20 PM
View a comprehensive set of NRS indicators at the Facility, Peer and National levels for the last 5 fiscal years. Users can select options for various factors including peer group, RCG and reporting period. Reports can be viewed as tables or graphs.
3. NRS Analytical Reports
Owner: Administrator
Modified: 7/14/09 7:16:31 AM
Build your own report to analyze Admission Profile, Outcomes at Discharge, Outcomes at Follow-up and Resource Utilization for the last 5 fiscal years. Customize your report by choosing what indicators to include and how to display your report.
Peer Information Report for Facilities Submitting Follow-up Data
Owner: Administrator
Modified: 2/14/11 1:25:59 AM
View up-to-date and historical information regarding facility type, bed numbers and facility location for all facilities submitting follow-up data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF
Peer RCG Information Report
Owner: Administrator
Modified: 11/26/10 12:28:25 AM
View up-to-date and historical information regarding facility type, bed numbers, facility location and discharges by RCG for all facilities submitting data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF

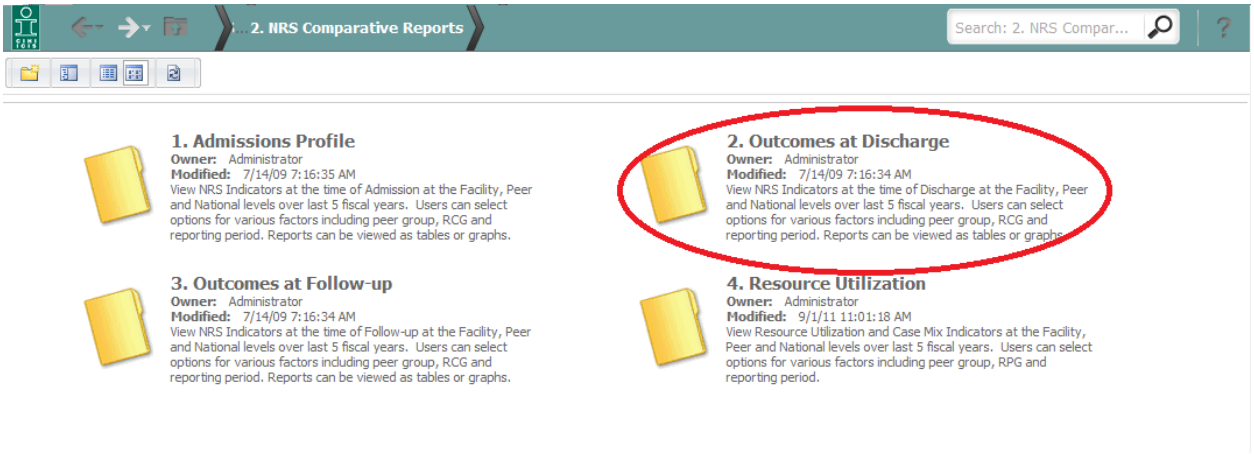
2. The Comparative Reports folder (Figure 6.8) displays four categories of Comparative Reports:

   i. Admissions Profile;
   ii. Outcomes at Discharge;
   iii. Outcomes at Follow-Up; and
   iv. Resource Utilization.

   (For a listing of the Comparative Reports that are available in each of the four categories, refer to Appendix A—Folder Structure. For a more detailed description regarding interpretation of each Comparative Report, consult Chapter 11.)

   Click on the category of Comparative Reports corresponding to the report you would like to create.

Figure 6.8 The Comparative Reports folder contains four categories of reports: Admission Profile, Outcomes at Discharge, Outcomes at Follow-Up and Resource Utilization.


2. NRS Comparative Reports
Search: 2. NRS Compar...
1. Admissions Profile
Owner: Administrator
Modified: 7/14/09 7:16:35 AM
View NRS Indicators at the time of Admission at the Facility, Peer and National levels over last 5 fiscal years. Users can select options for various factors including peer group, RCG and reporting period. Reports can be viewed as tables or graphs.
2. Outcomes at Discharge
Owner: Administrator
Modified: 7/14/09 7:16:34 AM
View NRS Indicators at the time of Discharge at the Facility, Peer and National levels over last 5 fiscal years. Users can select options for various factors including peer group, RCG and reporting period. Reports can be viewed as tables or graphs
3. Outcomes at Follow-up
Owner: Administrator
Modified: 7/14/09 7:16:34 AM
View NRS Indicators at the time of Follow-up at the Facility, Peer and National levels over last 5 fiscal years. Users can select options for various factors including peer group, RCG and reporting period. Reports can be viewed as tables or graphs.
4. Resource Utilization
Owner: Administrator
Modified: 9/1/11 11:01:18 AM
View Resource Utilization and Case Mix Indicators at the Facility, Peer and National levels over last 5 fiscal years. Users can select options for various factors including peer group, RPG and reporting period.

3. Depending on which category you selected, you will see a screen providing between five and seven different Comparative Reports (see chart in Appendix A). To generate a report, click on the desired report icon. If you cannot find the report that you are looking for and would like to select from a different category of Comparative Reports instead, simply click on the NRS Comparative Reports navigation link at the top of the screen in the trail of breadcrumbs navigation bar and then make a different category selection.
4. Regardless of which Comparative Report you have chosen to generate, you will be prompted to select values through which to filter the data. There are four possible types of prompts that you may encounter in Comparative Reports:
   a. Facility—allows you to select your facility by name/number (only one facility name/number permitted)
   b. Fiscal Year(s)—allows one or more fiscal years for which to view data
   c. Rehabilitation Client Group(s)—allows selection of one or more RCG of interest; if no selection is made, reports will be generated for all RCGs by default
   d. Peer Group—allows selection of a comparison peer group based on **one** of facility type **or** number of beds **or** facility name; choose **only one** of these grouping methods when selecting your peer group
   Note: Defining a Peer Group is optional to the user. The Default for the Peer Group will be "All Facilities," as such an aggregated value for all Facilities will be displayed if no peer group is designated.

   Some of the above prompts will be marked as *(required)—in these cases, you must make a selection before proceeding or you will receive an error message.

5. Once you have made selections for all of the necessary prompts, click Run Report in the bottom left-hand corner. A wait page will appear while your report is being created (see Section 6.6 for more information on the wait page). This page appears because the reports are created on demand, based on information you have asked for. Report creation may take several seconds or up to one minute, depending on the report that you chose to generate.

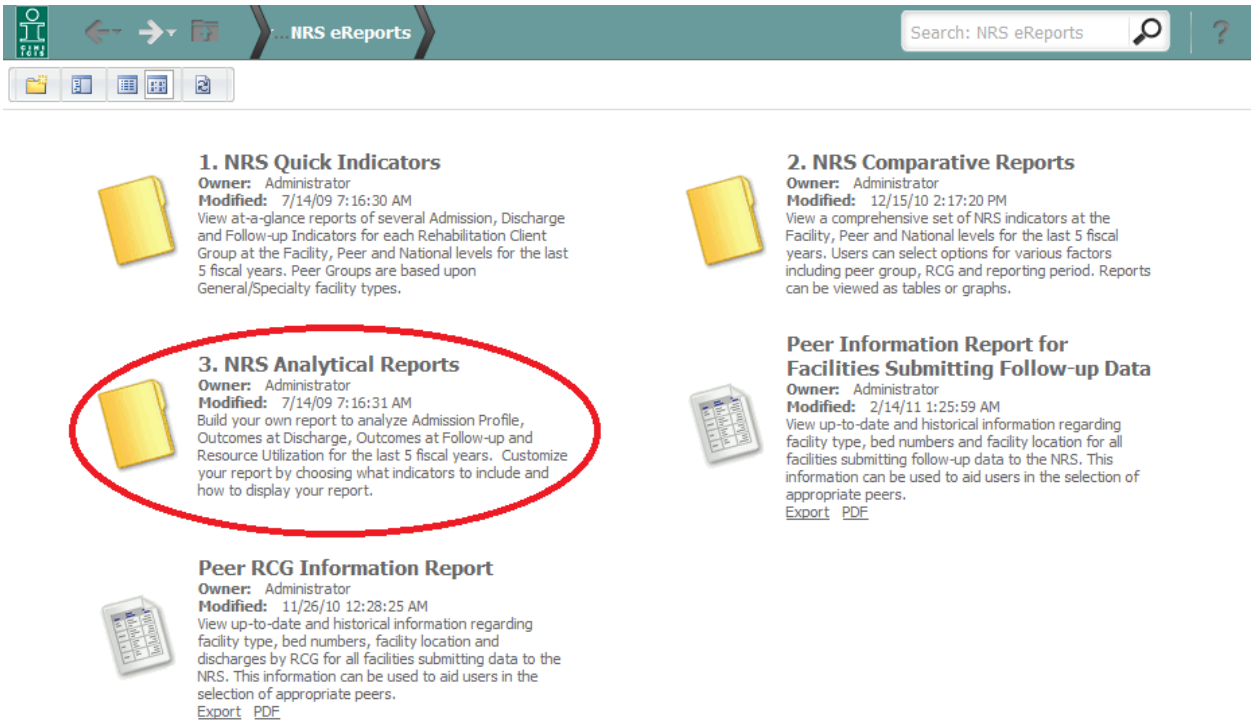
6. Once the report has been created, you will see the Report screen. The Report screen, with all of its menus and toolbars, will allow you to modify how the data is displayed. Chapter 7 provides more information about the how to modify your report using the tools provided on the Report screen. For instance, you might:
   a. Drill from fiscal year to fiscal quarter;
   b. Alter the Page-By options at the top of the report to display only certain data on a particular page; or
   c. Choose to display the data in a grid (table), a graph or both grid-and-graph.
7. Once the report contains the data that you are interested in and looks the way that you want, you may choose to export, save, or print your newly created report. For details about these options, please refer to Chapter 8.

6.4 Creating Analytical Reports

To create an Analytical Report:

1. From either the NRS eReports Launch Page (Chapter 3) or the NRS eReports folder (Section 6.1), click on NRS Analytical Reports.

Figure 6.9 NRS Analytical Reports can be accessed from the NRS eReports folder.


NRS eReports
Search: NRS eReports
1. NRS Quick Indicators
Owner: Administrator
Modified: 7/14/09 7:16:30 AM
View at-a-glance reports of several Admission, Discharge and Follow-up Indicators for each Rehabilitation Client Group at the Facility, Peer and National levels for the last 5 fiscal years. Peer Groups are based upon General/Specialty facility types.
2. NRS Comparative Reports
Owner: Administrator
Modified: 12/15/10 2:17:20 PM
View a comprehensive set of NRS indicators at the Facility, Peer and National levels for the last 5 fiscal years. Users can select options for various factors including peer group, RCG and reporting period. Reports can be viewed as tables or graphs.
3. NRS Analytical Reports
Owner: Administrator
Modified: 7/14/09 7:16:31 AM
Build your own report to analyze Admission Profile, Outcomes at Discharge, Outcomes at Follow-up and Resource Utilization for the last 5 fiscal years. Customize your report by choosing what indicators to include and how to display your report.
Peer Information Report for Facilities Submitting Follow-up Data
Owner: Administrator
Modified: 2/14/11 1:25:59 AM
View up-to-date and historical information regarding facility type, bed numbers and facility location for all facilities submitting follow-up data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF
Peer RCG Information Report
Owner: Administrator
Modified: 11/26/10 12:28:25 AM
View up-to-date and historical information regarding facility type, bed numbers, facility location and discharges by RCG for all facilities submitting data to the NRS. This information can be used to aid users in the selection of appropriate peers.
Export PDF

2. The Analytical Reports folder (Figure 6.10) displays the four types of reports that may be created:
   a. Admissions Profile

Build your own report to analyze admission indicators including client characteristics, age, sex and functional status at admission.

b. Outcomes at Discharge
Build your own report to analyze discharge indicators including client characteristics, age, sex, outcomes at discharge, referral source and functional status at discharge. Wait times, length of stay and service interruption data is also available for analysis.

c. Outcomes at Follow-Up
Build your own report to analyze follow-up indicators including client characteristics, age, sex and functional status at follow-up. Other indicators such as length of stay and service interruptions are also available for analysis.

d. Resource Utilization
Build your own report to analyze resource utilization and case mix indicators by Rehabilitation Group (RG) and Rehabilitation Patient Group (RPG).

For a list of the attributes and metrics that may be used to generate each Analytical Report, consult chapters 13 and 14, respectively.

Click on the category of Analytical Report that you would like to generate.

Figure 6.10 Four types of Analytical Reports may be created: Admissions Profile, Outcomes at Discharge, Outcomes at Follow-Up and Resource Utilization.

...3. NRS Analytical Reports
Search: 3. NRS Analytic...
1. Admissions Profile
Owner: Administrator
Modified: 7/14/09 7:16:32 AM
Build your own reports to analyze Admission indicators, including client characteristics, age, gender, and functional status at admission. Users choose the attributes and metrics that will be included in the reports.
2. Outcomes at Discharge
Owner: Administrator
Modified: 7/14/09 7:16:31 AM
Build your own reports to analyze Discharge indicators, including client characteristics, age, gender, and functional status at admission and discharge. Users choose the attributes and metrics that will be included in the reports.
3. Outcomes at Follow-up
Owner: Administrator
Modified: 7/14/09 7:16:32 AM
Build your own reports to analyze Follow-up indicators, including client characteristics, age, gender, and functional status at follow-up. Users choose the attributes and metrics that will be included in the reports.
4. Resource Utilization
Owner: Administrator
Modified: 7/14/09 7:16:32 AM
Build your own reports to analyze Resource Utilization and Case Mix indicators. Users choose the attributes and metrics that will be included in the reports.

3. Each Analytical Report folder contains at least two different reports: one that permits peer and national comparisons in the same manner as Comparative Reports (these reports contain “Peer Comparisons” in their names); and one that does not prompt you to select a peer group but does permit selecting more than one facility in the Facility prompt (these reports contain “Multiple Facilities” in their names). Creating the latter of these reports allows you to view data from multiple facilities without having their data aggregated into one peer group. This may be of particular use for regional health authorities or facilities that are subdivided and have more than one facility number.

4. Regardless of which Analytical Report you have chosen to generate, you will be prompted to select values through which to filter the data. There are five standard prompts for each

Analytical Report (the Peer Comparisons reports contain additional prompts for determining a peer group):

a. Facility—allows one or more choices of facility name/number
b. Fiscal Year(s)—allows one or more fiscal years for which to view data
c. Rehabilitation Client Group(s)—allows selection of one or more RCGs of interest; if no selection is made, reports will be generated for all RCGs by default
d. Metrics—allows selection of one or more metrics that you would like displayed on your report; choice of metrics will depend on which Analytical Report is being created
e. Attributes—allows selection of one or more attributes that you would like displayed on your report; choice of attributes will depend on which Analytical Report is being created

5. Once you have made selections for all of the necessary prompts, click Run Report in the bottom left-hand corner. A Wait Page will appear while your report is being created (see Section 6.6 for more information on the Wait Page). This page appears because the reports are created on demand, based on information you have asked for. Report creation may take several seconds or up to one minute, depending on the report that you chose to generate.
6. Once the report has been created, you will see the Report screen. The Report screen, with all of its menus and toolbars, will allow you to modify how the data is displayed. Chapter 7 provides more information about how to modify your report using the tools provided on the Report screen. For instance, you might:

   a. Drill into one or more of the attributes and metrics;
   b. Alter the Page-By options at the top of the report to display only certain data on a particular page; or
   c. Choose to display the data in a grid (table), a graph or both grid-and-graph.

7. Once the report contains the data that you are interested in and looks the way that you want, you may choose to export, save or print your newly created report. For details about these options, please refer to Chapter 8.

6.5 How Do I Regenerate a Previously Created Report?

There are probably numerous times that you will want to regenerate a report that you have previously created, rather than creating the report from scratch again. NRS eReports makes this easy to do.

Previously created reports are stored in either My Reports (provided that you have saved them there) and/or the History List (provided that you have added them to the History List during or immediately after creation). After navigating to one of these areas, you can browse through the listing of reports and their descriptions until you find one of interest. To run the report, click on either the report's PDF link or its document icon. The PDF link produces a static, formatted version of the report. The document icon gives you the flexibility to format and manipulate report objects. Before being presented with the report, you are first brought to the Wait Page.

6.6 The Wait Page

Upon answering prompts to create a report, and after clicking on the Run Report button, you will be presented with a wait page. The Wait Page appears while the report is being generated, and it contains the report name and its current execution status. When the report has finished being executed against the database, the Report screen (see Section 7.1) automatically replaces the Wait Page.

What If I Don't Want to Wait for the Report to Run?

Although every effort has been made to optimize the database for fast query performance, certain very large or complex queries may take longer to run than you would like. What options do you have if this happens? Below are the **four different options** presented on the Wait Page:

Check Status Again

Selecting this option forces the Wait Page to refresh.

Note: The Wait Page will also refresh automatically at an interval specified by the CIHI Administrator.

Add to My History List

Selecting this option allows the report to keep running while you perform other tasks with the software. When you have finished the other tasks, you can go to the History List and open the stored results of the completed report without having to wait.

Cancel

Selecting this option allows you to completely cancel the execution of the report and be returned to the page where the selected report is saved.

Show Report Details

Selecting this option allows you to view information such as the report description, filter definition, run time and number of rows returned.

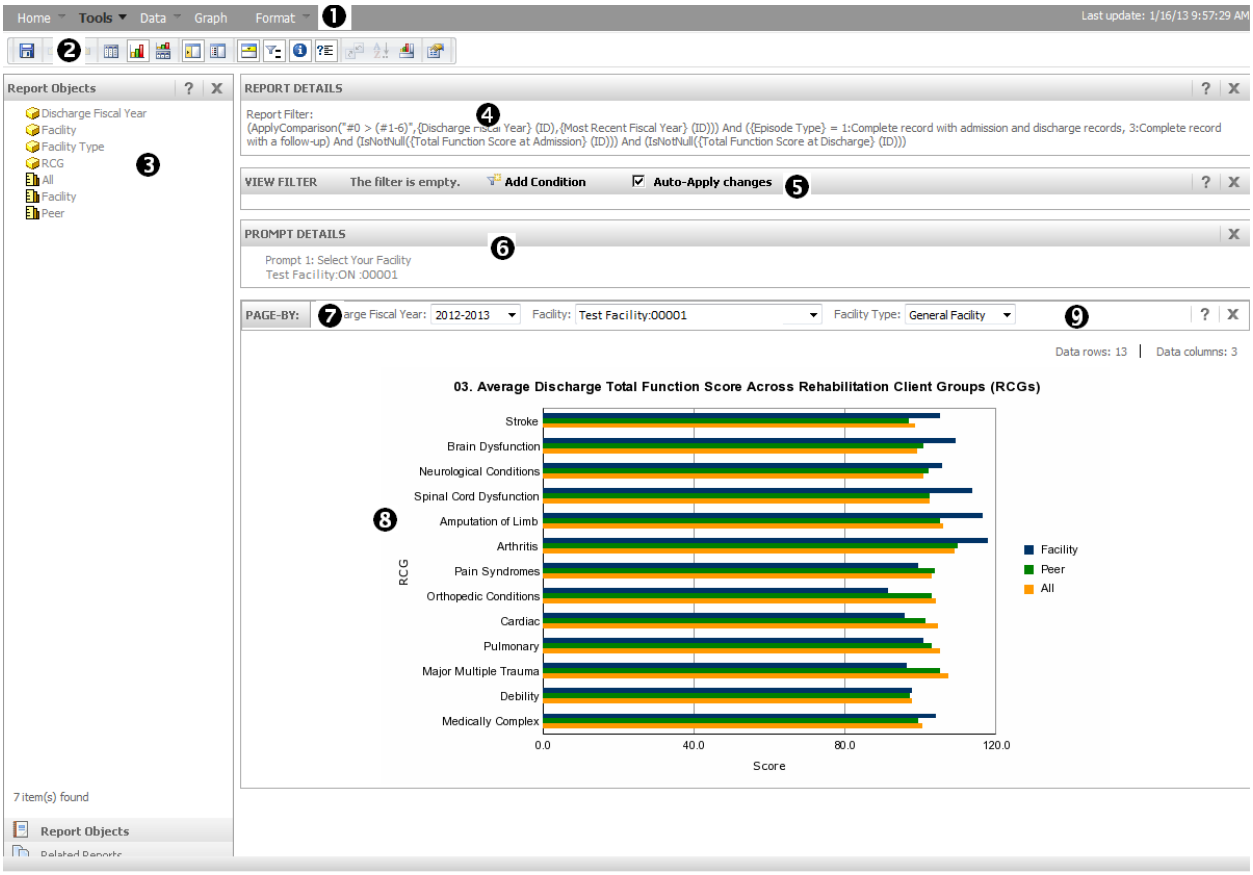
7 Modifying and Formatting Reports

This chapter describes ways in which you can modify and format your reports prior to saving, exporting or printing them, and describes various aspects of the report that you have now created.

7.1 Report Screen

After you have chosen a report to create, provided answers to all required prompts and clicked on the Run Report button, and after the NRS eReports system has finished querying the database and the Wait Page has disappeared, a Report screen (Figure 7.1) will appear.

Figure 7.1 An Example of the Report Screen



Circled numbers correspond to in-text descriptions provided below.

There are nine key areas on the Report screen, most of which may be made visible or hidden using the Tools pull-down menu.

❶ Menu Bar
This bar supports four drop-down menus: Home, Tools, Data and Format. You will learn more about features available through these menus in this and the following sections.

❷ Toolbar
The buttons on these toolbars facilitate formatting and analysis of reports. The buttons that are available depend on which toolbar is visible at the time, and this can be changed by clicking on the Home, Tools, Data, Grid/Graph and Format menu tabs immediately above the toolbar. You will learn more about this toolbar in Section 7.2.

❸ Report Object Browser
This window contains a Report Objects tab that displays the objects that make up the report that you are viewing. The information in this window may not significantly assist the average user in creating reports.

❹ Report Details
This window displays all the constraints that are defined in the report query. These constraints are otherwise known as the Report Filter and are written in a technical language that the average user may find challenging.

❺ View Filter
This window permits additional filters to be placed on the retrieved data. In this way, users can more narrowly specify what data is included or excluded from a particular report. See Section 7.8 for more details about using the View Filter.

❻ Prompt Details
This window shows the selections that you made on the Prompt screen.

❼ Page-By Axis
The Page-By axis appears at the top of each report grid or graph and provides you with a way to change which information is displayed in the report. Using this axis, you can restrict visible grid or graph data according to a specific attribute or metric.

(The Page-By axis may automatically include metrics and attributes that are available in the report, or you may have to add desired metrics and attributes using the Pivot Buttons [see Section 7.5 for more details], depending on which report you have created. The metrics/attributes in the Page-By axis can also be moved from the Page-By axis into the report rows or columns.)

❽ Report Grid or Graph
In this window you can see, in addition to the data returned for the report, the number of rows and columns comprising it.

❾ Report Bar

This bar is located in the top right-hand corner of the report grid or graph and lists the number of data rows and columns reported in the grid (or the grid that would correspond with the displayed graph if the report is in graph form).

Note: Some of these areas may not be visible by default. You can turn them on or off by using the Tools menu, located in the menu bar.

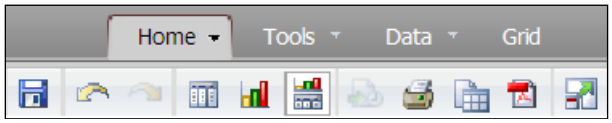
7.2 Toolbar

Below the pull-down menu bar, there exists a toolbar whose contents change depending on which menu tab (Home, Tools, Data, Grid/Graph, or Format) has been selected. Regardless of which tab is active, the first six buttons remain the same. Thereafter, each tab will provide different buttons for the toolbar. These buttons all correspond to functions that are also available through the drop-down menus themselves. The toolbar buttons that correspond to each tab are described below.

Note: The tabs that are present at any given time depend on whether your report is formatted as a grid, a graph or both.

Home Toolbar

Figure 7.2 The Home Toolbar

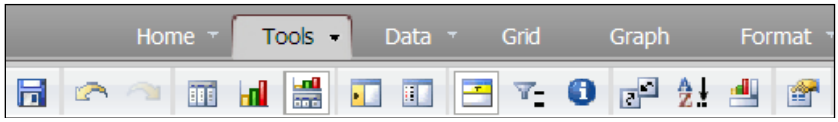


Icons (from left to right):

Save—Save your result as a report, template or filter.
Undo—Undo the most recent action.
Redo—Redo the most recent action.
Grid—View report in grid format.
Graph—View report in graph format.
Grid and Graph—View report data in both grid and graph formats.
Add to History List—Add the report to the History List cache.
Print—Display Print Options window.
Export—Export report to Excel, CSV, HTML or plain text formats.
Export to PDF—View report in PDF format based on options selected.
Full Screen Mode—Enlarge the Report screen.

Tools Toolbar

Figure 7.3 The Tools Toolbar

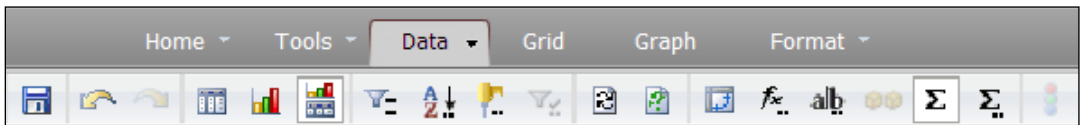


Icons (from left to right):

Save—Save your result as a report, template or filter.
Undo—Undo the most recent action.
Redo—Redo the most recent action.
Grid—View report in grid format.
Graph—View report in graph format.
Grid and Graph—View report data in both grid and graph formats.
Report Objects—Display or hide the Report Objects window.
Related Reports—Display or hide the Related Reports window.
Page-By Axis—Display or hide the Page-By axis.
View Filter—Display or hide the View Filter window.
Report Details—Display or hide the Report Details window.
Prompt Details—Display or hide the Prompt Details window.
Show Pivot Buttons—Display or hide the pivot buttons.
Show Sort Buttons—Display or hide the Sort Options window. You can sort based on up to three data elements in ascending or descending order.
Graph Zones—Display or hide the Graph Zones window.
Report Options . . . —Open the Report Options window.

Data Toolbar

Figure 7.4 The Data Toolbar



Icons (from left to right):

Save—Save your result as a report, template or filter.
Undo—Undo the most recent action.
Redo—Redo the most recent action.
Grid—View report in grid format.
Graph—View report in graph format.
Grid and Graph—View report data in both grid and graph formats.

Add View Filter Condition . . . —Display or hide the View Filter window.

Sort . . . —Display or hide the Sort Options window. You can sort based on up to three data elements in ascending or descending order.

Drill . . . —Open Drill Options window. You can drill to higher or lower levels of data in the hierarchy. Refer to Section 7.7 for more information about drilling.

Filter on Selections—Select rows and/or columns to be removed from the currently displayed report.

Re-run Report—Refresh the report with data retrieved from the latest valid cache.

Re-prompt—Return to the Prompt screen to make changes to your report selections.

Swap Rows and Columns—Change the view of the data in the grid by swapping rows and columns.

Insert New Metric . . . —Add a pre-existing or newly defined metric to the grid.

Rename/Edit Objects . . . —Open a window to allow for renaming or editing of an attribute or metric.

Toggle Attribute Forms—Display the different forms of the attribute.

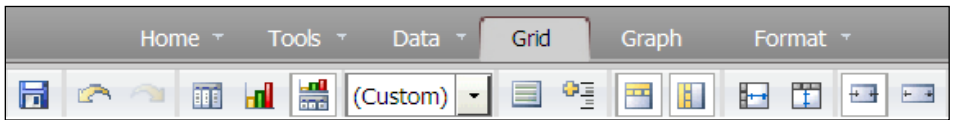
Toggle Totals—Display or hide totals from the grid.

Edit Totals . . . —Allows editing and specification of totals and other functions (for instance, Minimum, Maximum, Average) on the grid.

Toggle Thresholds—Toggle predefined report threshold definition on or off.

Grid Toolbar

Figure 7.5 The Grid Toolbar (Grids only)



Icons (from left to right):

Save—Save your result as a report, template or filter.

Undo—Undo the most recent action.

Redo—Redo the most recent action.

Grid—View report in grid format.

Graph—View report in graph format.

Grid and Graph—View report data in both grid and graph formats.

Autostyles—Select a customized report style.

Banding—Display coloured bands on the grid.

Outline—Display data in a nested indent format.

Merge Column Headers—Merge similar column names into one.

Merge Row Headers—Merge similar row headers into one.

Lock Column Headers—Lock column headers in place.

Lock Row Headers—Lock row headers in place.

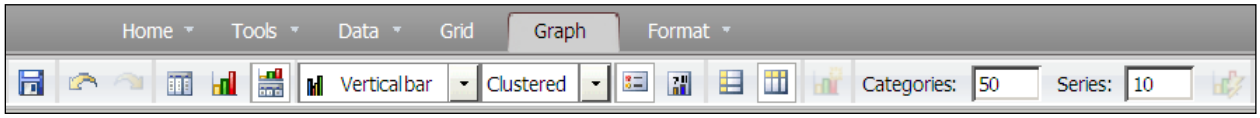
Auto Fit to Contents—Rearrange grid size to fit data in the window frame.

Auto Fit to Window—Rearrange cell size to make cell content visible.

For more information about the options available in the Grid toolbar, refer to Section 7.3.

Graph Toolbar

Figure 7.6 The Graph Toolbar (Graphs only)



Icons (from left to right):

Save—Save your result as a report, template or filter.

Undo—Undo the most recent action.

Redo—Redo the most recent action.

Grid—View report in grid format.

Graph—View report in graph format.

Grid and Graph—View report data in both grid and graph formats.

Graph Type—Select a graph type.

Graph Subtype—Select a graph subtype.

Legend—Display legend on the graph.

Data Values—Display data values on the graph.

Series by Row—Display series by rows.

Series by Column—Display series by columns.

Auto Arrange—Automatically repositions components of your graph in an attempt to fix overlapping elements or those currently being displayed with incorrect spacing.

Categories—Specify number of data values to be displayed on one graph page.

Series—Specify number of bars on the graph representing different data values of the same attribute element.

Apply—Apply the formatting change(s) to the graph.

For more information about graph formatting, refer to Section 7.4.

Format Toolbar

Figure 7.7 The Format Toolbar

Icons (from left to right):

Save—Save your result as a report, template or filter.

Undo—Undo the most recent action.
Redo—Redo the most recent action.
Grid—View report in grid format.
Graph—View report in graph format.
Grid and Graph—View report data in both grid and graph formats.
Report Section—Select rows, columns or metrics to be formatted.
Header or Values—Select portion of grid (header or values) to be formatted.
Font Style—Select font style.
Font Size—Select font size.
Bold—Display selection in bold.
Italic—Display selection in italic.
Underline—Underline the selected grid portion.
Left—Align selection to the left.
Centre—Align selection in the centre.
Right—Align selection to the right.
Currency Style—Display selected numerical data to dollar amounts.
Percent Style—Display selected numerical figures in percentage format.
Comma Style—Round selected numerical data to nearest full integer.
Increase Decimal—Increase the number of decimal places in the selected data.
Decrease Decimal—Decrease the number of decimal places in the selected data.
Fill Color—Set a background colour for the selected cells in the grid.
Line Color—Set the line colour for the selected cells in the grid.
Text Color—Set the text colour for the selected cells in the grid.
Borders—Set borders around the selected cells in the grid.
Border and Line Style—Set the border styles around the selected cells in the grid.
Advanced Grid Formatting—Open the Advanced Formatting window.
Advanced Graph Formatting—Open a graph formatting window.

For more information about formatting, refer to sections 7.3 and 7.4.

7.3 Grid Formatting

Grid formatting allows you to change the appearance of the objects on your report. This can be done using the options available on the Grid toolbar and/or Format toolbar, or via the Advanced Formatting window. There are three ways to access the Advanced Formatting window: through the Format drop-down menu, by clicking on the Advanced Grid Formatting button on the Format toolbar, or by right-clicking on the attribute name you want to format. The following four tabs appear in the Advanced Formatting window:

Font

The Font tab allows you to select any object and object component (such as header or values) on the report and make changes to the font and background of the selected object.

Number

The Number tab allows you to select any object and object component (such as header or values) on the report and change the number format. When you select a number format (such as currency, date or percentage) you will be presented with additional options. Number options are similar to those in Microsoft Excel.

Alignment

The Alignment tab allows you to select any object and object component (such as header or values) on the report and change the text alignment. Options include horizontal and vertical alignment styles and word wrapping.

Colour and Lines

The Colour and Lines tab allows you to select any object and object component (such as header or values) on the report and add a border. Options include border line style, colour and thickness.

Aside from the Advanced Formatting window, there is also a Resize Columns and Rows window, available from the Format menu, and a Report Options window, available from the Tools menu and toolbar. Both are described below.

Resize Columns and Rows

This window allows you to resize the report to fit the browser window, resize the report to the width of the data in each column or choose a custom size for each column and row.

Report Options

Opening the Report Options window allows the following functions for formatting a report. These options can also be individually accessed from the Grid toolbar.

- **Merge Row and/or Column Headers**
  This option allows you to either show all row and/or column headers or merge the values of repeated row and/or column headers.

- **Lock Row and/or Column Headers**
  This option allows you to lock both the row and column headers. This feature is helpful if you have a very large report and want to be able to scroll through it while still being able to see the labels at the top of the column or side of the rows.

- **Outline**
  This option provides a more interactive way of viewing your data. A series of boxed plus (+) or minus (-) signs appear to the left of each repeated attribute value. By clicking on the plus or minus sign you can choose to display or hide data at lower levels of detail.

- **Show Banding**
  This option allows you to apply alternating background colours for each row of a report. Each row will then appear with different bands of colour. This can make it easier to read the data table.

- **Show Attribute Form Names**
  This option allows you to display the full names that are used for some of the attributes that might be included in your report. This feature is likely only of interest for more advanced users and does not provide much added functionality for most users.

- **Remove Extra Column**
  In grid reports, removes the hidden column that contains a header entitled “Metrics.” Removing this column does not fundamentally change the grid, but may be desirable to some users.

- **Full Screen Mode**
  This check box allows you to specify whether or not the report should always open in full screen mode.

Steps to Formatting a Grid:

For advanced formatting options:

1. Display the report in grid view.
2. Open the Format drop-down menu.
3. Select Advanced Formatting.
4. Select the portion of grid you want to format.
5. Click the appropriate tab to define format configuration for Font, Number, Alignment, and Colour and Lines.
6. Click Apply for each configuration.
7. Click OK to accept changes.

To resize columns and rows:

1. Open the Format drop-down menu.
2. Select Resize Columns and Rows.
3. Define the desired size.
4. Click OK.

Autostyles

Autostyles are a formatting shortcut that allows a custom report format to be defined and then quickly applied to any grid report. Autostyles allow quick formatting of:

- Colours;
- Fonts and sizing;
- Merged row or column headers; and
- Banding.

Autostyles can be applied from the Grid toolbar. Experiment with different Autostyles and see which ones you might want to use for different report types. For example, “Monochrome” works well for simple cross-tab reports and “Squares” automatically merges cells with the same attribute values.

How to apply Autostyles:

1. Display the report in grid view.
2. Click Autostyles drop-down list on Grid toolbar.
3. Select the desired Autostyle.

7.4 Graphing a Report

Once a report of your choice has been generated, the data may be viewed as a graph by selecting the Graph or Grid-and-Graph icons from the toolbar on your screen. The Graph icon will convert the data in the report to a graph. Grid-and-Graph will allow you to see the graph with the accompanying data table underneath. Selecting Graph or Grid-and-Graph from the Home drop-down menu will achieve the same results.

The default graph that appears is a vertical bar graph displaying each quarter in a separate bar (Series by Column).

When you switch to Graph or Grid-and-Graph view, a Graph tab and toolbar will become available (refer to Section 7.2). This will enable you to manipulate the look of your graph in order to show different trends that may exist in the data.

To return to a grid report, click the Grid icon, next to the Graph icon, in the toolbar.

Tip: If you are viewing a report with many attributes (for example, multiple facilities and outputs), the resulting graph may be quite complex. You may want to reduce the number of attributes you are trying to view if a graph is required.

Graph Formatting

Graph formatting allows you to change the appearance of your graph. Graph formatting options can be accessed by clicking on the Graph . . . menu item in the Format menu. The graph formatting panel will appear as a pop-up window on the screen.

The following five tabs appear in the graph formatting panel:

General

This tab allows you to make changes to the look and feel of the graph. Options include changing graph type and subtype, and changing the number of categories and series that display on the graph at the same time.

Format

This tab allows you to make changes to the text, fill and line styles and colours that appear on the graph.

Number

This tab allows you to change the number format displayed in series labels. Typically, these are predefined according to the data that is present in the report.

Axes

This tab allows you to make changes to the look of the graph axes, such as altering the maximum and minimum values or specifying the size of grid intervals.

Advanced

This tab includes advanced options such as defining the series to be used in the graph, font and line resizing, and showing of subtotals.

How to format a graph:

1. Click the Graph icon on the menu bar to display the report in graph view.
2. Open the Format drop-down menu.
3. Select Graph.
4. Select the General, Format, Number, Axes or Advanced tab.
5. Define the preferred formatting options.
6. Click Apply.
7. Click OK.

7.5 Data Manipulation

There may be times that you want to reorganize the way information is displayed and aggregated on a report without actually changing the overall content. Data manipulation can help to highlight a particular issue or trend that may not have been as clear when the report attributes were displayed in a previous configuration.

There are three ways to move data (such as attributes or metrics) around in a report:

- Clicking on the object's header and dragging it to a new location.
- Right-clicking on the object's header and selecting Move . . . .
- Displaying **Pivot Buttons** by selecting Pivot Buttons from the Tools menu. The pivot buttons will display beside the object's headers and can then be used to move them to another location.

Additionally, the **Page-By** feature allows you to create a third dimension to the report by placing one or more objects onto the Page-By axis. The Page-By feature allows you to separate your report data into distinct pages that can be viewed separately. The Page-By feature can save you time by allowing you to view what looks like multiple reports without having to re-query the database. For example, if Province is one of the attributes in a report and you moved it to the Page-By axis, you would be able to look at the data in the report one province at a time.

How to modify the report layout:

Moving objects using Pivot Buttons:

1. Display the report in grid view.
2. Open the Tools drop-down menu.
3. Select Pivot Buttons.
4. Use Pivot Buttons to move objects to rows, columns or page items.
5. Repeat Step 4 until desired data layout on grid is achieved.

Moving objects by dragging:

1. Display the report in grid view.
2. Left-click on mouse, hold and drag object header to desired position on grid.

7.6 Sorting

You can sort any column of data in a report. Choosing a column to arrange its values in ascending or descending order rearranges data in all columns appropriately.

There are two ways that you can sort data in a column. The first way is to right-click on the column header and select Sort Ascending or Sort Descending.

The second way is by using the Tools menu. When Sort Buttons is selected from the Tools menu, arrows will display beside each of the row and column headers.

- If the arrow is shaded grey (▽), the column is not sorted.
- If the arrow is white and pointing up (△), the column is sorted in ascending order.
- If the arrow is white and pointing down (▽), the column is sorted in descending order.

To sort a single column of data, click on the arrow beside the column heading (one click will sort the data in descending order and a second click will reverse the sort). You are also able to sort multiple columns of data by using the Sort menu.

How to sort:

Sorting by right-clicking:

1. Display the report in grid view.
2. Right-click on the attribute name or heading in the grid.
3. Select Sort, Descending or Ascending.

Sorting using Sort Buttons:

1. Display the report in grid view.
2. Open the Tools drop-down menu.
3. Select Sort Buttons.
4. Click on Sort Buttons to sort data in desired order.

For advanced or combination sorting:

1. Display the report in grid view.
2. Open the Data drop-down menu.
3. Select Sort.
4. Define the sorting configuration.
5. Click Apply.
6. Click OK.

7.7 Drilling

Drilling refers to looking at your data at a different level of analysis. For instance, you might drill down to look at more specific groupings of data. If data is shown for a particular fiscal year, for example, you might drill down to view the data at the level of reporting periods (that is, quarters). Alternatively, you could drill down from national-level data to provincial level. Drilling up refers to looking at less specific, larger groupings of data. For instance, you might choose to collapse data across various age groups if age was not an important factor in your analysis. In this case, you are drilling up from the level of age groups. Likewise, if you were only interested

in overall number of clients requiring rehabilitation for a particular impairment, you might drill up from the level of sex (that is, collapse data across both sexes).

Drilling allows you to explore different levels of information within a report. The following are ways to drill to another level of detail once you have run your report:

Hyperlink Drilling

A hyperlink (underlined text) in a report has an associated default drill level (for example, the default drill level for Province could be Facility). To drill to this associated default level, simply click on the hyperlink. The report will refresh and the data will appear with a new level of detail. To drill using a hyperlink:

1. Display the report in grid view.
2. Click on any hyperlinked data element.

Right-Click Drilling

You can access the drill menu by right-clicking on any attribute header (for example, Province) or attribute element (for example, Saskatchewan) in the report. The attributes and direction you can drill up or down to are displayed in the menu that appears. To drill using a right-click:

1. Display the report in grid view.
2. Right-click on an attribute or attribute element.
3. Select drill level from the drop-down menu.

Menu Drilling

In reports that permit drilling, you can access the Drill Panel by selecting Drill from the Data menu. The Drill Panel allows you to drill up or down in an attribute hierarchy, drill to another unrelated attribute, drill from a compound metric to its underlying metrics or keep the original (parent) attribute on the report when you drill to a new level of detail. To drill using the menu:

1. Display the report in grid view.
2. Open the Data drop-down menu.
3. Select Drill.
4. Define the drill boundaries in the Drill Panel.
5. Click Apply.

Drilling From a Graph

If a Comparative Report or an Analytical Report is formatted as a graph, you can drill to another level of detail by clicking directly on the graph. The new graph displayed is based on the default rules the graph designer defined when constructing the report. Clicking on the bar or pie piece in a graph is similar to clicking on a row or column element in a table. To drill from a graph:

1. Display the report in graph view.
2. Click directly on the graph to drill to another level.
3. Click on a bar or pie portion of the graph to drill to a more detailed data level.

7.8 Filtering

A filter sorts through the data in your data source and presents you with the specific information you request. When you analyze a report, it is important to understand the filter conditions that are being applied to the report. This allows you to better understand what data is being excluded from the results.

By default, the filter is not visible and must be selected.
You can see the existing filter conditions that were applied to the report by the report designer by selecting **Report Details** from the Tools menu. The Report Details window shows the constraints that were used to design the report, though the language in which they are described may be challenging for the average user.

You can apply further filter constraints to the current instance (or view) of a report by using a **View Filter**. The View Filter limits the data being displayed on a report without re-executing the report against the data source. To create one or more View Filters, click on Add Condition in the View Filter window. (If this window is not currently visible at the top of your report, select View Filter from the Tools menu.) Proceed to define the condition(s) on which the data should be filtered and then click the check mark (Apply) button. To remove a particular filter, click on the Cancel button beside it.

Alternatively, you can narrow your view of a report to only the rows and columns you want to see. This is achieved using the **Filter on Selections** feature that is available via the Data menu and toolbar, or via the menu that appears after right-clicking on a particular row or column. This feature will allow you to keep certain rows or columns of data while filtering out others, but has less flexibility than a View Filter.

8 Saving, Exporting and Printing

8.1 How to Save a Report

A report can be saved by selecting the Save icon on the Home toolbar or from the Home drop-down menu. This feature will allow you to save your report in the **My Reports** folder that is available in NRS eReports. This feature is useful if you want to customize the content and format of your reports and then save them to be rerun every quarter. Reports saved in this folder can then be refreshed every quarter with new data (see text box below).

When you select the Save option, the My Reports window will open. If you have previously saved any reports in this folder, you will see them listed here. A default name and description of the report you are trying to save also appears. **You may wish to re-name the report and use a description that will make the report and its contents easy to identify.**

Important: You can save reports to My Reports so that they can be manually refreshed with new data every quarter. For example, you may wish to view an updated Functional Status at Admission report every quarter without having to reselect the RCGs and the peer grouping you are interested in each time, and without reformatting it the way you like. To do this, save the report you have created to My Reports, and make sure the Keep Report Prompted box in the lower left corner is unchecked. If you save the report with this boxed unchecked, you can go directly to My Reports each quarter and select that report, and the data will be refreshed automatically.

Note that the My Reports folder is always displayed in the Navigation toolbar at the top of every screen. Note, also, that **reports saved to your My Reports folder are only accessible by you; other users cannot view this reports. If you wish to share a report with other NRS eReports users, save your report to the User-Defined NRS eReports folder**, found in the Shared Reports folder. All NRS eReports users have access to this folder, so saving here means that anyone else may run the report that you have created.

Tip: If the report needs to be saved in a computer directory so that a static version is available, the report must be exported using the PDF or Export features, as described in Section 8.2. If you export a report and save it to your computer, it will not refresh every quarter.

How to save a report:

1. Display the report in grid or graph view.
2. Open the Home menu.
3. Select Save As.
4. Select the desired location to save the report.
5. Define a name for the report.
6. Enter a brief description of the report.
7. Decide whether you want to select new prompt values each time the report is rerun. If so, ensure the Keep Report Prompted box is checked. If not, uncheck the box.
8. Define the Advanced Options (if applicable).
9. Click OK.

10. Click Return to Original Report to return to the Report screen, or Run Newly Saved Report to return to the Prompt screen.

8.2 Exporting Reports

A report can be exported as a Microsoft Excel, HTML, CSV or text file by clicking the Export icon in the Home toolbar or from the Home drop-down menu. Likewise, a report can be exported as a PDF file directly by clicking the PDF icon in the Home toolbar or by selecting Export from the Home drop-down menu.

Exporting a Report to PDF Format

A report may be viewed as a PDF document by selecting the PDF icon from the Home toolbar or by selecting Export from the Home drop-down menu. Once the selection has been made, a new web page containing PDF options will appear. You may customize the appearance of the PDF document by manipulating any of the available options or you may directly select Export at the bottom of the page. The latter option will create a PDF document based on the software's default settings. You can then save this document to your files to share with others.

Tip: When graphing data, there are times when the title representing a data element is too long to be fully displayed in the legend of the PDF graph. This issue can be resolved by selecting Show Advanced Options on the PDF Options page, then checking the box for Use Bitmaps for Graphs option. Now, the graph legend will display the full titles belonging to each data element.

Exporting a Report to Other File Formats

A report may be exported in a variety of formats by selecting the Export icon from the Home toolbar or from the Home drop-down menu. Once the selection has been made, a new page containing Export options will appear. Note that different options will be displayed on this page depending on whether you are currently viewing only a grid (that is, only the data table is being displayed) or whether you are viewing a graph or grid-and-graph report.

Exporting a Grid Report

By default, the report will be exported in the format of an **Excel With Plain Text** file. This type of format allows greater manipulation of the data once it is in Excel. The Excel With Formatting option is more appropriate for presentation purposes. Note that exporting using Excel With Plain Text will mean that only the selected metrics on the grid will appear in the exported report. In both cases, there is an Expand All Page-By Fields option available. Checking the Expand All Page-By Fields box will produce an exported report that shows results for all available selected metrics.

Other available formats, such as CSV file format, HTML and plain text (delimiter: comma, tab, semicolon, space) may also be used for a variety of purposes.

Note that for any of the selected format options (with the exception of the HTML option), a message will pop up requesting you to open, save or cancel the operation.

To export from grid view:

1. View the report in grid view.
2. Click the PDF or Export icon on the Home toolbar.
3. Print or save the document in exported format.

OR:

1. View the report in grid view.
2. Open the Home drop-down menu.
3. Select Export.
4. Define Export options.
5. Click Export.
6. Print or save the document in exported format.

To export from History List:

1. Navigate to the History List.
2. Click the PDF or Export icon for a particular report.
3. Print or save the document in exported format.

Exporting a Graph or Grid-and-Graph Report

By default, the report will be exported in HTML format. In cases where greater manipulation of the graph and data grid is needed, the Excel With Formatting option should be selected.

Note that if the Excel With Formatting option is selected, a message will pop up requesting you to open, save or cancel the operation.

Tip: When graphing data, there are times when the title representing a data element may be too long to be fully displayed in the legend of the exported graph. This issue can be resolved by selecting the Excel With Formatting option and checking the Export Graphs as Live Excel Charts box. Now, the graph legend will display the full titles belonging to each data element.

To export from graph or grid-and-graph view:

1. View the report in graph or grid-and-graph view.
2. Click the PDF or Export icon on the Home toolbar.
3. Print or save the document in exported format.

OR:

1. View the report in graph or grid-and-graph view.
2. Open the Home drop-down menu.
3. Select Export.
4. Define Export options.
5. Click Export.
6. Print or save the document in exported format.

To export from the History List:

1. Navigate to the History List.
2. Click the PDF or Export icon for a particular report.
3. Print or save the document in exported format.

Tip: Exported reports and graphs can be saved to a folder on your personal computer, if desired. Once saved outside of the NRS eReports system, however, the report becomes a static "snapshot in time," and the data does not get refreshed. Only reports within the NRS eReports system may be updated with new data at a later point in time.

8.3 How to Print a Report

A report can be printed by selecting the Print icon from the Home toolbar or Home drop-down menu. Once the selection has been made, a new page containing print options will appear.

You may customize the printing options available or directly select Show Printable Version to print the report using the default settings available for the software. A PDF version of the report will appear and the Print icon on the menu toolbar must be selected in order to send the document to be printed.

Tip: When graphing data, there are times when the title representing a data element may be too long to be fully displayed in the legend of the printed graph. This issue can be resolved by selecting Show Advanced Options on the Print options page, then checking the box for Use Bitmaps for Graphs option. Now, the graph legend will display the full titles belonging to each data element.

Part 2: NRS eReports Report Interpretation Guidelines

Chapter 9	Data Submission and Reporting
Chapter 10	In-Depth: NRS Quick Indicators
Chapter 11	In-Depth: NRS Comparative Reports
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Chapter 13	In-Depth: NRS Attributes
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Chapter 15	Additional Help With NRS eReports

9 Data Submission and Reporting

9.1 Population of Reference

The data contained in the NRS eReports database relates primarily to adults (18 and older) with physical and/or cognitive impairments and functional limitations who have received inpatient rehabilitation services from participating facilities across Canada. At the time of printing, participation in the NRS remains voluntary for all provinces and territories except Ontario. As such, it cannot be stated that the data in the NRS is representative of all inpatient rehabilitation activity in Canada. Participating facilities submit data to CIHI on a quarterly basis. NRS eReports generated during a particular reporting quarter include data from all records that were successfully submitted prior to the corresponding quarterly deadline. The data contained within these eReports is aggregate data from a specific time period, as chosen by the user at the time of report creation.

9.2 Data Quality in the NRS

Data quality is an important component of the NRS and is primarily addressed by CIHI through the following mechanisms:

- Clinical training sessions with online testing requirements;
- Documentation of the NRS data elements and guidelines for coding;
- Logical and sequential checks built into vendor software and during data processing at CIHI;
- NRS Data Submission eLearning module available online at https://learning.cihi.ca.
- Submission/error reports generated within two days of data submission;
- Client support for clinical coding and data submission;
- Ongoing monitoring of data submissions by the NRS team at CIHI; and
- NRS Data Quality documentation, including an annual assessment of data quality in the NRS data set (publicly available at www.cihi.ca/nrs), as well as the annual *Data Quality Report for Provinces/Territories*, directed to each province and territory's deputy minister of health.

Facilities are encouraged to promote internal data quality with regard to the NRS through in-house training and retesting, regular data quality checks and ongoing communication with the NRS team at CIHI.

9.3 Submission Timelines

The table below shows timelines for submission of data to CIHI for the NRS. Dates are consistent from year to year.

Note: If a deadline date falls over a weekend or holiday, records that are submitted by the deadline will be processed on the next working day. For the Error Correction Deadline, the data cut is typically taken the morning of the next working day following a date that falls on a weekend or holiday. Any records submitted by the deadline date will be processed prior to taking the data cut.

NRS Submission Timelines

Quarter	Reporting Period	Submission Deadline †	NRS eReports Data Updated*
Quarter 1	April 1 to June 30	July 31	Approximately 4–5 weeks after the data submission deadline
Quarter 2	July 1 to September 30	October 31	
Quarter 3	October 1 to December 31	January 31	
Quarter 4	January 1 to March 31	April 30	

Note

* This date may vary slightly according to CIHI's internal production schedule.

† The NRS quarterly data cut is taken two weeks after the data submission deadline. This additional time between the submission deadline and the data cut allows facilities to submit corrections for records that were submitted by the submission deadline, but were rejected due to errors.

9.4 Data Submission Options

Facilities have two options for submitting NRS records.

Option 1

Submit all records for the quarter in which they occur. For example, if a client is admitted in Q3 and is discharged in Q4, the admission assessment is completed and submitted in Q3, and the discharge assessment is completed and submitted in Q4. Facilities using this method may consequently have "open" records, when an admission record is submitted in one quarter but the corresponding discharge record has not yet been submitted. This option will also include complete admission and discharge records for clients who were admitted and discharged within the same quarter.

Implications for reporting:

Facilities that submit under Option 1 are able to generate reports that contain up-to-date (to the latest reporting quarter) admission data. However, any reports which provide data that requires complete records (both admission and discharge data submitted)—for example, Length of Stay and Service Interruptions—will be generated using only the complete records that have been submitted.

Option 2

Submit admission and discharge records together in the quarter in which the discharge occurred. For example, if there was an admission in Q3 and the person was discharged in Q4, both the admission record for Q3 and discharge record for Q4 would be submitted in Q4.

Note: In order to ensure a valid submission, the admission records must be submitted and accepted prior to submitting the discharge records. Assessments that occur in different quarters must be submitted in separate files at the time of submission, as submission files are coded according to the quarter in which corresponding assessment records occurred.

Implications for reporting:

Facilities using Option 2 will not have any open admission records, that is, they will have both an admission and corresponding discharge record. A possible drawback to using Option 2 is

that you will not be able to view up-to-date admission-related data, instead having to wait until the corresponding discharges occur.

Implications for all Facilities Regardless of Option Chosen

The use of two different methods by facilities may result in different populations being included in Admissions Profile and Outcomes at Discharge reports. The former will include admissions with or without complete discharge records for facilities choosing to submit under Option 1, whereas they will include only admissions with complete discharge records for facilities choosing Option 2.

Discrepancies in Total Numbers Reported

Reported client numbers may vary between different generated reports, depending on whether a facility is submitting data under Option 1 or Option 2. Refer to the Data Submission Options section to review these options.

The total numbers in the various reports may differ between indicators due to missing data. For example, if a discharge FIM® instrument assessment is not completed for a client due to an (Un)planned Discharge (19A Admission Class = 4) or other reason, that record is excluded from the calculation of all Function Score indicators (which require both complete admission **and** discharge FIM® instrument scores), other than those in Admissions Profile reports. (Admissions Profile reports are based on data provided at admission only and may, therefore include records that end up not being included in some Outcomes at Discharge reports.) Therefore, the total N value for any column reporting Function Scores may be less than the total N values reported for other indicators such as Discharge Destination or Average Onset Days, where complete Function Scores are not required. Similarly, for applicable indicators, records containing Unknown and Missing values are excluded from the indicator calculations. Refer to Chapter 14 for further detail on inclusions and exclusions for the various metric calculations.

Note: Unknown and Missing values are excluded from calculations but they are **included** in the denominator for percentage calculations. For this reason, the total column percentage may be less than 100%. The difference between the reported total percentage and 100% may represent the percentage of records that are Unknown or Not applicable for a given indicator.

9.5 Definition of a “Complete” Record

The NRS only accepts complete and error-free records into the database. A complete record has all of the mandatory data elements coded and has passed through all edit checks when processed at CIHI. Edit specifications at the data collection level and at the data processing level detect missing or incorrect data elements. Records that have been rejected as a result of missing mandatory data elements or errors are not considered complete and are not accepted into the database. Facilities can check the status of their submission files in the submission reports on the secure Operational Reports page of the CIHI website. Facilities must correct any errors and resubmit these records for inclusion in the database.

Admission Records

The definition of a complete admission record will vary depending on the coding of data element 19A Admission Class. Refer to the *NRS Rehabilitation Minimum Data Set Manual*, sections 3 and 4, for more details regarding the coding of this data element.

If 19A = 1 (Initial rehabilitation), 2 (Short stay), 3 (Readmission) or 5 (Continuing rehabilitation), then complete FIM® instrument and CIHI assessments are mandatory on the admission assessment, as are several other data elements.

If 19A = 4 ([Un]planned Discharge), then the following mandatory elements are the minimum required for the record to be accepted as complete:

4 Chart Number
5 Health Care Number
6 Province/Territory Issuing Health Care Number
7 Sex
8 Birth Date (9 Estimated Birth Date, if applicable)
21 Admission Date
30 Discharge Date
34 Rehabilitation Client Group
80 Most Responsible Health Condition
81 Pre-Admit Comorbid Health Conditions
83 Transfer or Death Health Condition (if client transferred or died)

Note: Data elements reported in addition to the minimum requirements will be included in the quarterly report indicators where applicable. Note, however, that in many reports, (Un)planned Discharges are excluded as they lack most admission and discharge data elements.

Discharge Records

The definition of a complete discharge record will vary depending on the coding of data element 31 Reason for Discharge.

If 31 = 1 (Service goals met and discharged to community) or 2 (Service goals met and referral/transfer to other unit/facility), then FIM® instrument and CIHI assessments are mandatory on the discharge assessment, as are several other data elements.

If 31 = 3 (Service goals not met), then the following mandatory elements are the minimum required for the record to be accepted as complete:

30 Discharge Date
32 Referred To
33A Referred to Province/Territory
33B Referred to Facility Number (if 32 is a facility)
83 Transfer or Death Health Condition (if client transferred or died)

If 31 = 4 (Facility/agency withdrew services), 5 (Client withdrew), 6 (Client no longer eligible), 7 (Client moved) or 8 (Client deceased), then the following mandatory elements are the minimum required for the record to be accepted as complete:

30 Discharge Date
83 Transfer or Death Health Condition (if client transferred or died)

Note: Data elements reported in addition to the minimum requirements will be included in the quarterly report indicators where applicable.

10 In-Depth: NRS Quick Indicators

At this point, you should be familiar with some important NRS eReports terms. Ensure that you understand these terms before proceeding. You can find descriptions of these terms in Chapter 5.

- Attributes
- Metrics
- RCG
- And more . . .

For a complete list of all terms used in NRS eReports, refer to Appendix B.

10.1 Overview

Quick Indicators are the quickest and simplest type of report to generate. They are at-a-glance reports of several admission, discharge and follow-up indicators. There are 10 Quick Indicator reports available—9 in graph format and 1 in grid format. All nine graphs have identical properties, each reporting on a different indicator. The 10th report displays a grid containing four data quality indicators. Reports are organized to present information at the facility, peer and national levels. Peer groups are based on Facility Type (General or Specialty). Users are prompted only for Facility Name/Number in order to generate the report. Data can be shown for any of the most recent six fiscal years (or partial years). The first nine reports also permit drilling from fiscal year to fiscal quarter. Each Quick Indicator report is briefly described below.

1. **Average Days Waiting for Admission Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average days waiting for admission by RCG at the facility, peer and national levels.

2. **Average Admission Total Function Score Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average admission Total Function Score for each RCG at the facility, peer and national levels.

3. **Average Discharge Total Function Score Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average discharge Total Function Score for each RCG at the facility, peer and national levels.

4. **Average Change in Total Function Score Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the percent change in Total Function Score for each RCG at the facility, peer and national levels. Note that this indicator can only be calculated for clients that have complete admission and discharge Total Function Scores.

5. **Average Days Waiting for Discharge Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average days waiting for discharge for each RCG at the facility, peer and national levels.

6. **Average Length of Stay (LOS) Across Rehabilitation Client Groups (RCGs)**
   This graph-formatted report illustrates the average LOS for each RCG at the facility, peer and national levels.

7. **Average Length of Stay (LOS) Efficiency Across Rehabilitation Client Groups (RCGs)**
   This graph-formatted report illustrates the average LOS efficiency for each RCG at the facility, peer and national levels. Note that this indicator can only be calculated for clients that have complete admission and discharge Total Function Scores.

8. **Percent Discharged Home Who Were Home Prior to Admission Across Rehabilitation Client Groups (RCGs)**
   This graph-formatted report illustrates the percent of clients discharged home who were home prior to admission for each RCG at the facility, peer and national levels.

9. **Average Follow-Up Total Function Score Across Rehabilitation Client Groups (RCGs)**
   This graph-formatted report illustrates the average follow-up Total Function Score for each RCG at the facility, peer and national levels.

10. **Data Quality Indicators Report**
    Three data quality indicators are provided in this grid-formatted (that is, table) Quick Indicator report. Columns indicating facility, peer and national values are provided. The indicators are expressed as both the number of records used in the calculation (N) and as percentages. The three indicators included in this report are a subset of the indicators in the NRS *Data Quality Report for Provinces/Territories*, which is completed on an annual basis and sent to the deputy ministers of health of each province and territory in an effort to raise awareness and highlight data quality issues. If the report does not show data for one or more of these indicators, it is because your facility does not have any data to show:

    - Unknown Date Ready for Admission
    - Unknown Health Care Number
    - Unknown Referred to Facility Number

Figure 10.1 Example of a Graph-Formatted Quick Indicator Report

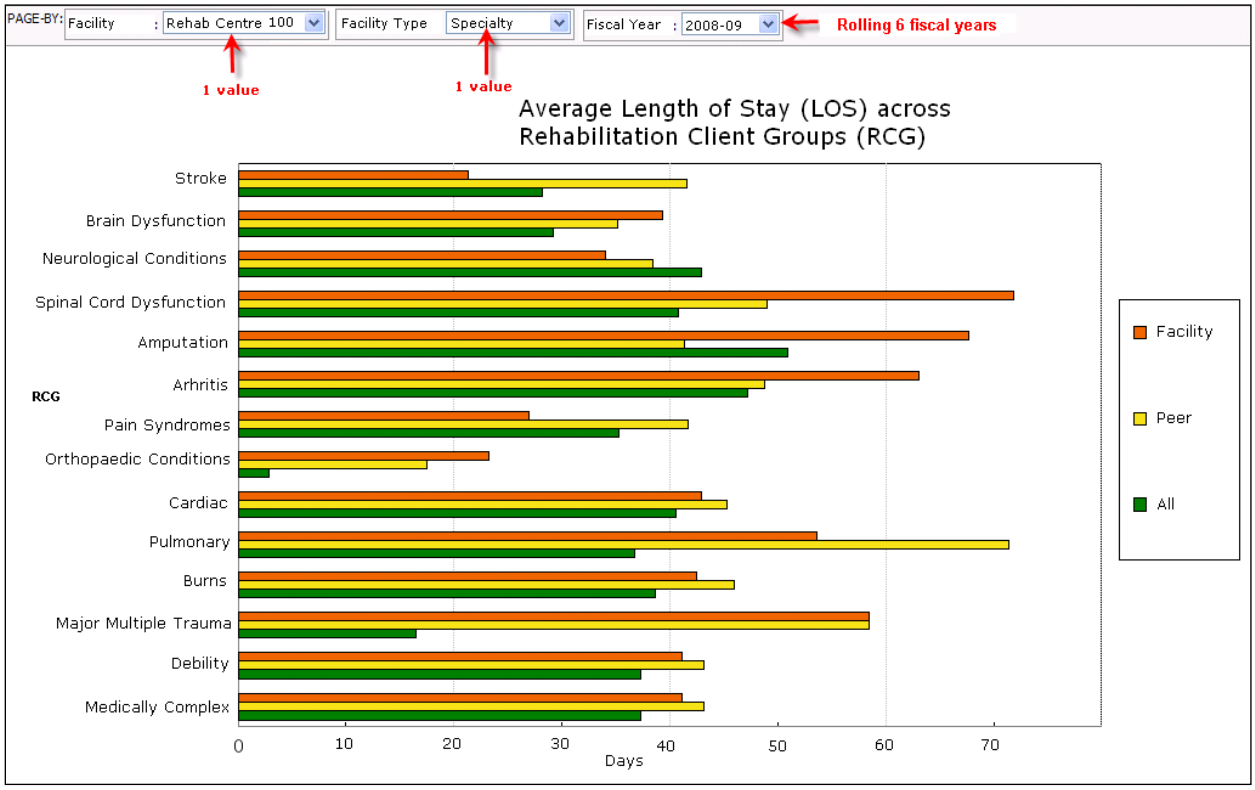
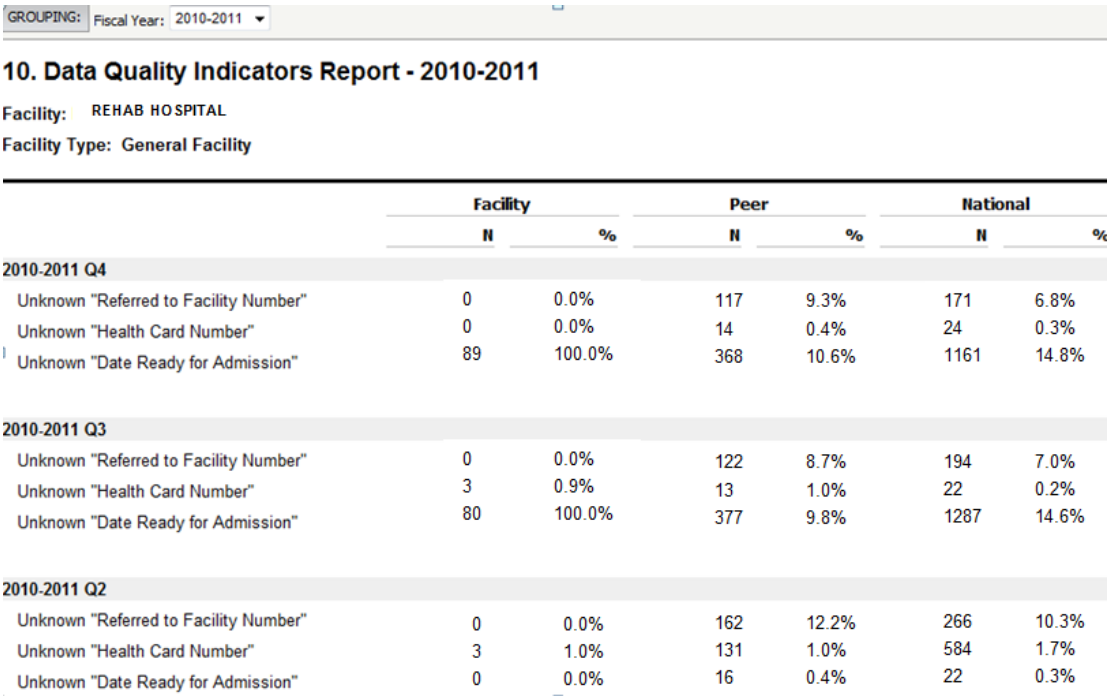


Figure 10.2 Example of the Data Quality Indicators Report



GROUPING: Fiscal Year: 2010-2011

10. Data Quality Indicators Report - 2010-2011

Facility: REHAB HOSPITAL

Facility Type: General Facility

	Facility		Peer		National	
	N	%	N	%	N	%
2010-2011 Q4						
Unknown "Referred to Facility Number"	0	0.0%	117	9.3%	171	6.8%
Unknown "Health Card Number"	0	0.0%	14	0.4%	24	0.3%
Unknown "Date Ready for Admission"	89	100.0%	368	10.6%	1161	14.8%
2010-2011 Q3						
Unknown "Referred to Facility Number"	0	0.0%	122	8.7%	194	7.0%
Unknown "Health Card Number"	3	0.9%	13	1.0%	22	0.2%
Unknown "Date Ready for Admission"	80	100.0%	377	9.8%	1287	14.6%
2010-2011 Q2						
Unknown "Referred to Facility Number"	0	0.0%	162	12.2%	266	10.3%
Unknown "Health Card Number"	3	1.0%	131	1.0%	584	1.7%
Unknown "Date Ready for Admission"	0	0.0%	16	0.4%	22	0.3%

Prompt screen

For all NRS Quick Indicator reports, the user will be presented with a prompt for Facility only. The prompt has the following instructions and an answer to the prompt is required:

1. **Select Your Facility*(required)**
   Select the facility for which you would like to run the report. This report allows only one selection.

The Facility prompt will:

- Offer rehabilitation facilities, by name and number, that have submitted data to the NRS;
- Allow only one choice;
- Have search capabilities; and
- Be sorted alphabetically by facility name.

Page-By Axis

The Page-By axis at the top of each Quick Indicator report will contain the following Page-By labels, each displaying one value:

- Facility
- Facility Type
- Fiscal Year (or Fiscal Quarter, if you have already drilled from year to quarter)

Common Functionality

All of the different Quick Indicator reports share the following functionality:

1. Once a report is run, users are able to choose the Fiscal Year Page-By to display the given report for any of the six given fiscal years. Since the most recent fiscal year may still be in progress, it will effectively contain year-to-date data for the most recent fiscal year. The first nine reports also permit drilling from fiscal year to fiscal quarter, so that users may view quarterly data.
2. Peer grouping is based on the facility type (general or specialty) defined for that facility for that fiscal year. Designation of General or Specialty is chosen by each facility and submitted as part of its Facility Profile.
3. Users are able to save or export any Quick Indicator report.
4. The filter details will be displayed above the report by default.

10.2 Attributes and Metrics Available in NRS Quick Indicators

The attributes that are available in the different NRS Quick Indicators are listed in Table 13.1 in Chapter 13. For attribute definitions, inclusion/exclusion criteria and interpretation considerations refer to Section 13.2.

The metrics that are available in the different NRS Quick Indicators are listed in tables 14.1 and 14.2 in Section 14.1. For metric definitions, inclusion/exclusion criteria and interpretation considerations refer to Section 14.2.

11 In-Depth: NRS Comparative Reports

For a list of available reports and where to find them, refer to Appendix A.

For a list of some common terminology used in describing reports, refer to Chapter 5.

- Attributes
- Metrics
- RCG
- RPG
- And more . . .

For a complete list of all terms used in NRS eReports, refer to Appendix B.

11.1 Overview

Comparative Reports allow more flexibility than Quick Indicator reports, but require slightly more time and effort to build, at least initially. They provide a comprehensive set of NRS indicators at the facility, peer and national levels for the six most recent fiscal years.

NRS Comparative Reports are divided into four different categories:

1. Admissions Profile
2. Outcomes at Discharge
3. Outcomes at Follow-Up
4. Resource Utilization

Each category includes up to seven different types of reports that can be generated (for example, Age at Admission, Functional Status at Discharge, Follow-Up Living Setting). You can select options for various factors including peer group, Rehabilitation Client Group (RCG) and reporting period. Reports can be viewed as tables or graphs or both. **Each of these four categories of Comparative Reports will be described in one of the following sections.**

Prompt screen

For all NRS Comparative Reports, the user is presented with a single prompt page offering a number of choices that allow the user to customize the contents of the resulting report. The prompt page contains a combination of the following choices:

- Facility—allows you to select your facility name/number
- Fiscal Year(s)—allows you to choose the year(s) included in the report
- Rehabilitation Client Group—allows you to select RCGs that you are interested in (if no choice is made, the data will reflect all RCGs)
- Peer Group—allows three different ways to select a peer group for comparisons
  Peer Group Prompts—There are three prompts to define peer groups by either facility type, number of beds or by facility name. The user is encouraged to choose a peer group through selecting options within only one of these three prompts. Each of the three peer group prompts is detailed below.

  Note: Defining a Peer Group is optional to the user. The Default for the Peer Group

will be "All Facilities," as such an aggregated value for all Facilities will be displayed if no peer group is designated.

Define the Peer Group Based on Facility Type

Choose to define the peer group by either general or specialty facility type. **If you choose this option, DO NOT define peer groups based on either of the following two prompts.**

Define the Peer Group Based on Number of Beds

Choose to define the peer group by the number of rehabilitation beds. **If you choose this option, DO NOT define peer groups based on either of the other two prompts.**

This prompt…

- Offers beds broken down in groups of:
  - 1–10
  - 11–20
  - 21–30
  - 31–40
  - 41–50
  - 51–75
  - 76–100
  - 101–200
  - 200+
- Allows multiple choices

Define the Peer Group Based on Facility Name

Choose to define the peer group by choosing one or more facilities by name or number. If more than one facility is chosen, values displayed in the Peer column of the report will reflect, depending on which metric is being considered, either a total or an average across all of the chosen facilities. **If you choose this option, DO NOT define peer groups based on either of the above two prompts.**

This prompt…

- Offers facilities participating in the NRS by name and number;
- Is sorted alphabetically by name; and
- Allows multiple choices.

Page-By Axis

The Page-By axis at the top of each Comparative Report may contain any number of Page-By labels, or none at all. Most commonly, RCG is listed in the Page-By axis, but you can cause any of the attributes or metrics included in your report to be used in the Page-By axis. See Section 7.1 for more information about the Page-By axis.

Common Functionality

All of the different Comparative Reports share the following functionality:

1. Data in reports is available for the most recent six fiscal years. Since the most recent fiscal year may still be in progress, that year will effectively contain year-to-date data only.
2. Users choose the method for creating peer groups for comparisons. Peer grouping is based on facility type (general or specialty) **or** number of beds **or** facility name(s)/number(s).
3. Users can drill into the data, such as from fiscal year to fiscal quarter.
4. Users are able to save or export any Comparative Report.
5. Filter details describing which data was chosen for the report will be displayed above the report by default.

11.2 Attributes and Metrics Available in NRS Comparative Reports

The attributes that are available in the different NRS Comparative Reports are listed in Table 13.1 in Chapter 13. For attribute definitions, inclusion/exclusion criteria and interpretation considerations refer to Section 13.2.

The metrics that are available in the different NRS Comparative Reports are listed in tables 14.1 and 14.2 in Section 14.1. For metric definitions, inclusion/exclusion criteria and interpretation considerations refer to Section 14.2.

11.3 Admissions Profile Comparative Reports

The following section describes the contents of the Admissions Profile sub-folder. This folder contains seven reports. These reports include summary data for clients admitted during the chosen reporting period and allow for peer and national comparisons. For more information about the attributes and metrics contained in these reports, refer to chapters 13 and 14, respectively.

1. **Admission by Referral Source**
   View admission counts and percentages for a defined reporting period by the referral source.

2. **Admission by Rehabilitation Client Group**
   View admission counts and percentages for a defined reporting period by RCG.

3. **Admission by Admission Class**
   View admission counts and percentages for a defined reporting period by admission class.

4. **Admission by Pre-Hospital Living Arrangements**
   View admission counts and percentages for a defined reporting period by pre-hospital living arrangements.

5. **Admission by Pre-Hospital Living Setting**
   View admission counts and percentages for a defined reporting period by pre-hospital living setting.

6. **Age at Admission to Facility**
   View admission counts and percentages for a defined reporting period by age at the time of admission. By default, data is shown by age group and sex.

7. **Functional Status at Admission to Facility**
   View functional status indicators of clients admitted during the defined reporting period. Indicators include Total Function Score and CIHI Cognitive Score.

11.4 Outcomes at Discharge Comparative Reports

The following section describes the contents of the Outcomes at Discharge folder. There are five Outcomes at Discharge Comparative Reports available in this folder. These reports include summary data for clients discharged during the chosen reporting period and allow for peer and national comparisons. For more information about the attributes and metrics contained in these reports, refer to chapters 13 and 14, respectively.

Data included in Outcomes at Discharge Comparative Reports are based on episodes that contain complete admission and discharge assessments.

1. **Client Demographics**
   View demographic indicators for clients discharged during the defined reporting period. Indicators include number of clients, average age, percent of males versus females, number of clients for whom a complete FIM® and CIHI Cognitive assessment was conducted, number of clients with service interruptions and number of service interruptions, and average admission body weight and body mass index (BMI) values.

2. **Functional Status at Admission and Discharge From Facility**
   View functional status indicators of clients discharged during the defined reporting period. Both functional status at time of admission and time of discharge, as well as the change between them, are included in this report.

3. **Clinical Outcomes at Discharge**
   View clinical outcome indicators for clients discharged during the defined reporting period. Indicators include counts and percentages of clients reporting improvements in health status, improvements/worsening of pain, and clients achieving service goals.

4. **Discharge Destination**
   View discharge counts and percentages by discharge destination for the defined reporting period.

5. **Length of Stay and Service Interruptions**
   View length-of-stay and service-interruption information for clients discharged during the defined reporting period. Indicators include average onset days, service interruption days, days waiting for admission and discharge, length of stay excluding interruption days, active rehab length of stay, length of stay efficiency and active rehab length of stay efficiency.

11.5 Outcomes at Follow-Up Comparative Reports

The following section describes the contents of the Outcomes at Follow-Up sub-folder. This folder contains five reports. These reports provide summary socio-demographic and client

function data for the 80-to-180-day period following discharge from a rehabilitation facility into the community (can include clients discharged to long-term care). Completion of the follow-up assessment is optional—facilities can choose to submit follow-up data on all clients or on only some clients, or can choose to not submit any follow-up data. The reports in this folder provide summary data only for clients that received follow-up assessments during the chosen reporting period. Data is provided at the facility, peer and national levels. For more information about the attributes and metrics contained in these reports, refer to chapters 13 and 14, respectively.

1. **Follow-Up Living Arrangements**
   View living arrangements for clients who received follow-up during the defined reporting period.

2. **Follow-Up Living Setting**
   View living settings for clients who received follow-up during the defined reporting period.

3. **Client Follow-Up Count**
   View maintenance and re-hospitalization indicators for clients who received follow-up during the defined reporting period. Indicators include clients hospitalized since discharge, clients maintaining function score gains and clients maintaining general health status.

4. **Functional Status at Follow-Up**
   View functional status indicators for clients who received follow-up during the defined reporting period. Functional status at time of admission and time of discharge are also included in this report for comparison purposes.

5. **Clients Achieving Partial or Full Community Reintegration**
   View community reintegration indicators (Reintegration to Normal Living Index or RNLI) for clients who received follow-up during the defined reporting period.

11.6 Resource Utilization Comparative Reports

The following section describes the contents of the Resource Utilization sub-folder. This folder contains seven reports.

1. **Rehabilitation Patient Group (RPG) Patient Days Report**
   View information on patient days at the facility, peer and national levels' rehabilitation patient groups for the desired reporting period.

2. **Rehabilitation Patient Group (RPG) Patient Days Report—Most Recently Completed Reporting Fiscal Quarter**
   View information on patient days at the facility, peer and national levels' rehabilitation patient groups for the most recently completed fiscal quarter.

3. **Rehabilitation Patient Group (RPG) Case Mix Report—Original Methodology**
   View information on length of stay (LOS) and Case Mix Index (CMI) at the facility, peer and national levels' rehabilitation patient groups for the reporting period, using the RPG cost weights and LOS trim points in effect during the fiscal year in which the client was discharged.

4. **Rehabilitation Patient Group (RPG) Case Mix Report—Current Methodology**

View information on length of stay (LOS) and Case Mix Index (CMI) at the facility, peer and national levels' rehabilitation patient groups for the reporting period, using the current RPG cost weights and LOS trim points. This report allows for historical trending of CMI.

5. **Function Status Gain by RPG**
   View the length of stay and length of stay efficiency indicators, as well as functional changes from admission to discharge at the facility, peer and national levels by Rehabilitation Patient Group for the reporting period.

6. **Regional Case Mix Report—Original Methodology**
   View case mix indicators for the provincial health regions, based on rehabilitation cost weights and length of stay trim point values originally in use during the chosen fiscal year.

7. **Regional Case Mix Report—Current Methodology**
   View case mix indicators for the provincial health regions, based on current rehabilitation cost weights and length of stay trim point values.

Reports 1 to 4 are RPG Patient Days and Case Mix Index (CMI) reports. These reports provide information on Rehabilitation Patient Groups (RPGs) at a facility level for the reporting period selected for each of the indicators below. If a facility had no clients who were allocated to a particular RPG during the period to which the report relates, the row for that RPG will contain zeros.

Reports 6 and 7 are Case Mix reports that show case mix indicators grouped by health region rather than by RPG and by Facility, Peer and All groups. These reports may be of more interest to health regions and provincial ministries of health than to users at individual facilities.

For further details on the methodologies used in these reports, facilities are directed to the CIHI's RPG Grouping Methodology document available from the CIHI website at www.cihi.ca/casemix.

Report 5 is the Functional Status Gain by RPG report. This report examines the changes from admission to discharge in average Total Function Score and Function Score domain scores, as well as CIHI Cognitive scores for each RCG subgroup. The domain scores further divide the Motor Function and Cognitive Function sub-scales into more comparable groups.

The report includes records with complete admission and discharge pairs. The various Function Score domains and CIHI Cognitive scales that appear in this report are indicated below:

Data Elements in Function Score and CIHI Cognitive Scale

Origin	Sub-Scale/Domain	Data Elements Included	Score Range
FIM®	Self-Care Function	Eating, Grooming, Bathing, Dressing Upper and Lower Body, Toileting	6 to 42
FIM®	Sphincter Function	Bladder Management, Bowel Management	2 to 14
FIM®	Transfer Function	Bed/Chair, Toilet, Tub/Shower	3 to 21
FIM®	Locomotion Function	Locomotion, Stairs	2 to 14
FIM®	Motor Function	All FIM® instrument motor elements	13 to 91
FIM®	Communication Function	Expression, Comprehension	2 to 14
FIM®	Social Cognition Function	Social Interaction, Problem Solving, Memory	3 to 21
FIM®	Cognitive Function	All FIM® instrument cognitive elements	5 to 35
FIM®	Total Function Score	All FIM® instrument elements	18 to 126
CIHI	CIHI Cognitive Score	All CIHI cognitive elements	7 to 30

12 In-Depth: NRS Analytical Reports

For a list of available reports and where to find them, refer to Appendix A.

For a list of some common terminology used in describing reports, refer to Chapter 5.
- Attributes
- Metrics
- RCG
- RPG
- And more . . .

For a complete list of all terms used in NRS eReports, refer to Appendix B.

12.1 Overview

Analytical Reports are “build-your-own reports” that allow even greater flexibility than Quick Indicators or Comparative Reports, but which require a bit more time and effort to produce than the other two types of reports. As with Comparative Reports, Analytical Reports are divided into four major categories. Unlike Comparative Reports, however, Analytical Reports allow you to display data based on **ANY available metrics and attributes**.

Each Analytical Report will prompt you for Facility (or Facilities), Fiscal Year(s) and RCG(s), and then will allow you to select your desired metrics and attributes. You will be prompted with a list of attributes and metrics associated with admissions, discharges, follow-ups or resource utilization to display on the report. Half of the Analytical Reports will also allow you to select a peer group using the same three Peer prompts that are available in the Comparative Reports.

The four types of Analytical Reports that can be built are the following:

1. **Admissions Profile**
   Build your own report to analyze admission indicators including client characteristics, age, sex and functional status at admission.

2. **Outcomes at Discharge**
   Build your own report to analyze discharge indicators including client characteristics, age, sex, outcomes at discharge, and functional status at admission and discharge. Wait times, length of stay and service interruption data is also available for analysis.

3. **Outcomes at Follow-Up**
   Build your own report to analyze follow-up indicators including client characteristics, age, sex and functional status at admission, discharge and follow-up. Other indicators such as length of stay and service interruptions are also available for analysis.

4. **Resource Utilization**
   Build your own report to analyze resource utilization and case mix indicators by Rehabilitation Group and Rehabilitation Patient Group.

These four folders contain two types of Analytical Reports. One report type permits selection of a single facility and an associated peer group, as in the NRS Comparative Reports. This type of report will display data at the Facility, Peer and All levels. The second report type does not permit selection of a peer group. However, it does allow you to select multiple facilities in the Facility prompt, rather than just one. In this manner, users are able to view data for several individual facilities on a single report. This may be useful, for instance, to users who submit data to the NRS as different subdivided facilities with different facility names and numbers, or to regional health authorities that wish to view all of their facilities in the same report.

Note: Defining a Peer Group is optional to the user. The Default for the Peer Group will be "All Facilities," as such an aggregated value for all Facilities will be displayed if no peer group is designated.

Example of an NRS Analytical Report

The following report illustrates a sample Outcomes at Discharge Analytical Report.

In the example below, the user has selected the desired facility and fiscal year, and decided to display RCG attributes in the grid. The user has also selected the Clients Discharged count, Total Function Score at Admission mean and Total Function Score at Discharge mean metrics to display. The user has limited the results to fiscal years 2013–2014 and 2014–2015, and Rehabilitation Client Groups to Brain Dysfunction and Stroke.

Figure 12.1 Sample Grid-Formatted Outcomes at Discharge Analytical Report

Discharge Fiscal Year	Facility	Rehab Client Group (RCG)	Metrics	Clients Discharged (COUNT)	Total Function Score at Admission (AVG) - AD	Total Function Score at Discharge (AVG) - AD
2014-2015	Rehab Facility 123	Stroke		56	73.1	96.7
		Brain Dysfunction		14	69.8	94.8
2013-2014	Rehab Facility 123	Stroke		98	77.6	100.5
		Brain Dysfunction		15	78.3	97.3

12.2 Attributes and Metrics Available in NRS Analytical Reports

The attributes that are available in the different NRS Analytical Reports are listed in Table 13.1 in Chapter 13. For attribute definitions, inclusion/exclusion criteria and interpretation considerations refer to Section 13.2.

The metrics that are available in the different NRS Analytical Reports are listed in tables 14.1 and 14.2 in Section 14.1. For metric definitions, inclusion/exclusion criteria and interpretation considerations refer to Section 14.2.

13 In-Depth: NRS Attributes

13.1 Overview

Attributes allow for the presentation of data by categories. They are added to reports to allow data to be summarized at varying levels of detail. For example, the attribute “sex” might be added to a report to allow data from male and female clients to be shown separately. The attributes that appear in a particular report depend on the purpose of the report. A report designed to show client data as it relates to age, for instance, will necessarily include an age-related attribute, such as “admission age group.” In the NRS Quick Indicators and NRS Comparative Reports, the attributes that are present in each report are pre-chosen by CIHI. In NRS Analytical Reports, however, each user has the freedom to decide which attributes are included in each report.

Attributes are typically displayed in the rows or Page-By axis of NRS eReports, and are also sometimes used as selection prompts (for example, RCG prompt). That is, some of the attributes that can be displayed in the report are also used to select which data is used in that report. For example, a user could use the Bed Grouping attribute to choose only to include data from small facilities in the report.

Available attributes vary depending on report type. Table 13.1 indicates the attributes that are available in the various NRS eReports. Definitions, descriptions and interpretation considerations for each attribute are listed in Section 13.2.

Table 13.1 Availability of attributes across NRS eReports. Report subtypes are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization. Report numbers are shown for Quick Indicators and Comparative Reports.

Attribute	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Admission Age Group		AP 6	All
Admission Class		AP 3	AP
ASIA Impairment Scale			AP
Body Mass Index (BMI) Group at Admission			All
Discharge Destination		OD 4	OD, OF
Facility	All	All	All
Facility Program Type			All
Facility Type	All	All	All
Fiscal Year	All	All	All

Attribute	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Follow-Up Living Arrangements		OF 1	OF
Follow-Up Living Setting		OF 2	OF
Most Responsible Health Condition ICD-10-CA Chapter			AP, OD
Number of Beds		All	All
Post-Discharge Living Arrangements			OD
Pre-Hospital Living Arrangements		AP 4	AP
Pre-Hospital Living Setting		AP 5	AP
Primary Reason for Waiting for Discharge			OD
Referral Source		AP 1	AP, OD
Rehabilitation Client Group (RCG)	QI 1-9	AP, OD, OF	All
Rehabilitation Group (RG)		RU 1-5	All
Rehabilitation Patient Group (RPG)		RU 1-5	All
Sex		AP 6	All

13.2 NRS Attribute Definitions (in Alphabetical Order)

This section provides a description of attributes found in various NRS eReports and indicates the reports in which each can be found. Attributes are listed in alphabetical order.

Admission Age Group

Available in

- NRS Comparative Reports > Admissions Profile > 6. Age at Admission to Facility
- All NRS Analytical Reports

Age groupings defined by the NRS. This allows data to be grouped by age range, rather than presenting data for each individual age. Data included in each age group is based on age at admission, calculated by subtracting element 8 Birth Date from element 21 Admission Date.

Interpretation considerations: Admission records include a data element to indicate if a client's birth date has been estimated (9 Birth Date Estimated). Since all NRS admission records are included in the calculation of age indicators, the accuracy of the values provided may vary depending on the number of records submitted for which the date of birth has been estimated. Additionally, the methodology for calculation of age rounds down to conform to the methodologies used in other CIHI databases.

Admission Class

Available in

- NRS Comparative Reports > Admissions Profile > 3. Admission by Admission Class
- NRS Analytical Reports > Admissions Profile

Describes the distribution of clients in the various admission categories, based on response coded for element 19 Admission Class.

Initial Rehabilitation (19A = 1) refers to the first rehabilitation admission to a rehabilitation facility or unit for the specific RCG.

Continuing Rehabilitation (19A = 5) refers to clients who are transferred directly from another rehabilitation facility or from a different level of rehabilitation within the same facility, for the same RCG.

Short Stay (19A = 2) refers to a pre-planned rehabilitation stay of 4 to 10 days or unexpected discharges within the same time frame.

Readmission (19A = 3) occurs when the client has already received rehabilitation for the specific RCG at some point in the past and has been readmitted for the same RCG, directly from the community or another facility where no rehabilitation was received for the RCG.

(Un)planned Discharge (19A = 4) includes episodes for which the length of stay is three days or less (including the admission date). This group may also include planned discharges in three days or less. For clients coded as (Un)planned Discharge, no corresponding discharge record is submitted to the NRS.

ASIA Impairment Scale

Available in

- NRS Analytical Reports > Admissions Profile

Describes the distribution of clients in the various ASIA impairment scale categories, based on the response coded for element 38 ASIA Impairment (Modified Frankel Scale). ASIA Impairment Scale describes the degree of motor and sensory involvement at admission to rehabilitation for traumatic and non-traumatic spinal cord injury.

Legend	
1	A – Complete impairment
2	B – Incomplete (sensory preserved)
3	C – Incomplete (motor non-functional)
4	D – Incomplete (motor functional)
5	E – Normal

Body Mass Index (BMI) Group at Admission

Available in

- All NRS Analytical Reports

Describes the distribution of clients based on their calculated Body Mass Index (BMI) value on admission. BMI is calculated by dividing the client's admission body weight (in kilograms) by the squared value of the client's height (in metres) – that is, kg/m^2. BMI values are grouped into four standard categories: underweight (<18.5), normal (18.5-24.9), overweight (25-30), and obese (>30). A fifth category (unable to calculate) is used in the NRS eReports to capture clients for whom a BMI could not be calculated, because of a missing height (element 40A) or weight (element 40B) value, for instance. Note that BMI data is only available in NRS eReports for fiscal years 2009-2010 and later due to changes in NRS coding specifications.

Interpretation considerations: BMI values are calculated for clients that have height and weight (elements 40A and 40B) data available, regardless of the accuracy of the values coded for these elements. As such, some clients may have BMI values that seem unreasonable or unlikely. This may be due to various measurement or coding issues (e.g., submitting a weight measured in pounds instead of kilograms, a height measured in inches rather than centimetres, etc.).

Discharge Destination

Available in

- NRS Comparative Reports > Outcomes at Discharge > 4. Discharge Destination
- NRS Analytical Reports > Outcomes at Discharge

Describes the number and percentage distribution of various post-discharge destinations based on all discharge records submitted. This indicator is derived from three data elements that must be completed on the discharge assessment: 15 Post-Discharge Living Setting, 32 Referred To and 31 Reason for Discharge.

15. Post-Discharge Living Setting	32. Referred To	31. Reason for Discharge
1 Home without health services	02 Inpatient acute unit, same facility	1 Goals met, discharged to community
2 Home with paid health services	03 Inpatient acute unit, different facility	2 Goals met, transfer to other unit/facility
3 Boarding house	04 Rehabilitation unit, same facility	3 Goals not met
4 Assisted living	05 Rehabilitation unit, different facility	4 Facility/agency withdrew services
5 Residential care	06 Ambulatory care service	5 Client withdrew
6 Shelter	07 Private practice	6 Client no longer eligible (funding)

15. Post-Discharge Living Setting	32. Referred To	31. Reason for Discharge
7 Public place	08 Drug dependency service	7 Client moved
8 Other	09 Community services	8 Client deceased
9 Acute care	10 Residential care facility	
50 Not available, temporarily	11 Legal service	
-70 Asked, unknown	12 Educational agency	
	13 Home care agency	
	97 Other	
	-50 Not available, temporarily	
	-70 Asked, unknown	
	-90 Not applicable	

Codes from the three elements above have been grouped together to form the following categories for Discharge Destination:

Home without services: Post-Discharge Living Setting = 1
Home with services: Post-Discharge Living Setting = 2
Other community: Post-Discharge Living Setting = 3, 4, 6, 7
Residential Care: Post-Discharge Living Setting = 5
Acute care: Post-Discharge Living Setting = 9 or Referred To = 02, 03
Expired: Reason for Discharge = 8

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) for elements 15 and 32 are included in the denominator for percentage calculations.

Facility

Available in

- All NRS eReports

A unique name and five-digit identifier used by an organization to submit data to the NRS.

An NRS facility may represent

- An entire organization that provides rehabilitation (such as a residential care facility, nursing home); or
- A unit or number of beds designated for rehabilitation within a larger organization (such as a complex rehabilitation unit).

The name is based on the official name of the organization as listed in CIHI's Organization Index, and may not exactly match the facility and site names as submitted in the NRS Facility Profile record.

Facility Program Type

Available in
- All NRS Analytical Reports

The type of program as defined by the rehabilitation facility/unit.

Facility Type

Available in
- All NRS eReports

Describes the facility as general or specialty based on facility self-assessment of the nature of the services, the type of hospital the service is located in, the provincial or regional designation and/or the self-assignment of the facility.

Fiscal Year

Available in
- All NRS eReports

Fiscal year in which the client is admitted, discharged or followed up, depending on the report being generated.

Follow-Up Living Arrangements

Available in
- NRS Comparative Reports > Outcomes at Follow-Up > 1. Follow-Up Living Arrangements
- NRS Analytical Reports > Outcomes at Follow-Up

Describes the distribution of various living arrangements on discharge, based on the response choice for element 76 Follow-Up Living Arrangements. The response choices for this element are as follows (clinicians should code all that apply):

1 Living with spouse/partner

2 Living with family (includes extended)

3 Living with non-family, unpaid (includes friends)

4 Living with paid attendant

5 Living alone

6 Living in facility (includes all levels of care except acute)

7 Other

-50 Not available, temporarily

-70 Asked, unknown

For reporting purposes, the response choices have been grouped as follows:
Living with family/friends (unpaid) = code 1 or 2 or 3 (excluding code 4)

Living with family/friends/paid attendant = code 1 or 2 or 3 **and** 4
Living with paid attendant only = code 4 only
Living alone = code 5
Living in facility, nursing home = code 6
Other = code 7

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations. It is possible for a client to be coded with more than one living arrangement (for example, living with spouse **and** family), but each client is counted only once in the calculation of N and percentages.

Follow-Up Living Setting

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 2. Follow-Up Living Setting
- NRS Analytical Reports > Outcomes at Follow-Up

Describes the distribution of various living environments on follow-up, based on the response choice for element 77 Follow-Up Living Setting. The response choices for this data element are (clinicians should code one option only)

1 Home (private house or apartment) without health services

2 Home (private house or apartment) with paid health services (for example, home care/support, formal or informal, private or publicly funded)

3 Boarding house (includes rented room)

4 Assisted living (includes group home, retirement home, supervised living setting)

5 Residential care (long-term care facility, convalescent care, nursing home)

6 Shelter (includes night shelter, refuges, hostels for homeless)

7 Public place (includes residing in the street, parks and other public spaces)

8 Other

-50 Not available, temporarily

-70 Asked, unknown

For reporting purposes, the response choices have been grouped as follows:
Home (private, without services) = code 1
Home (private, with services) = code 2
Boarding house = code 3
Assisted living = code 4
Residential care = code 5
Shelter = code 6
Public place = code 7
Other = code 8

Unlike the Follow-Up Living Arrangements data element, each client can only be coded into one living setting, and therefore only appears once in the calculation.

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations.
Interpretation considerations: This indicator, along with Follow-Up Living Arrangements, provides information on the home environment at the time of follow-up and can be compared to the post-discharge environment indicators in the measurement of outcomes.

Most-Responsible Health Condition ICD-10-CA Chapter

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

Describes the distribution of clients by etiological diagnoses at admission, based on the response choice for data element 80 Most Responsible Health Condition ICD-10-CA.

For reporting purposes, the response choices have been grouped by ICD-10-CA Chapter Codes. For further granularity, the indicator can be drilled down to the level of ICD-10-CA Rubric or to the level of the individual ICD-10-CA codes.

Number of Beds

Available in

- All NRS Comparative Reports and NRS Analytical Reports

The number of rehabilitation beds in operation at the facility, as defined by the facility. For NRS eReporting purposes, numbers of beds are grouped as follows: 0–10, 11–20, 21–30, 31–40, 41–50, 51–75, 76–100, 101–200, >200.

Post-Discharge Living Arrangements

Available in

- NRS Analytical Reports > Outcomes at Discharge

Describes the distribution of clients discharged to various living arrangements, based on the response choice for data element 13 Post-Discharge Living Arrangements. The response choices for this element are as follows (clinicians must code all that apply):

1 Living with spouse/partner

2 Living with family (includes extended)

3 Living with non-family, unpaid (includes friends)

4 Living with paid attendant

5 Living alone

6 Living in facility (includes all levels of care except acute)

7 Other

8 Living arrangement(s) is/are transitional or temporary

9 Living in acute care

-50 Not available, temporarily

-70 Asked, unknown

Pre-Hospital Living Arrangements

Available in

- NRS Comparative Reports > Admissions Profile > 4. Admission by Pre-Hospital Living Arrangements
- NRS Analytical Reports > Admissions Profile

Describes the distribution of clients admitted from various living arrangements, based on the response choice for data element 12 Pre-Hospital Living Arrangements. The response choices for this element are as follows (clinicians must code all that apply):

1 Living with spouse/partner

2 Living with family (includes extended)

3 Living with non-family, unpaid (includes friends)

4 Living with paid attendant

5 Living alone

6 Living in facility (includes all levels of care except acute)

7 Other

-50 Not available, temporarily

-70 Asked, unknown

For reporting purposes, the response choices have been grouped as follows:
Living with family/friends (unpaid) = code 1 or 2 or 3 (excluding code 4)
Living with family/friends/paid attendant = code 1 or 2 or 3 **and** 4
Living with paid attendant only = code 4 only
Living alone = code 5
Living in facility, nursing home = code 6
Other = code 7

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations. It is possible for a client to be coded with more than one living arrangement (for example, living with spouse **and** family), but each client is counted only once in the calculation of N and percentages. This indicator, along with Admission by Pre-Hospital Living Setting, provides information on the home environment prior to admission, and can be compared to the post-discharge environment in the measurement of outcomes.

Pre-Hospital Living Setting

Available in

- NRS Comparative Reports > Admissions Profile > 5. Admission by Pre-Hospital Setting
- NRS Analytical Reports > Admissions Profile

Describes the distribution of clients admitted from various living environments, based on the response choice for data element 14 Pre-Hospital Living Setting. The response choices for this data element are (clinicians must code one option only):

1 Home (private house or apartment) without health services

2 Home (private house or apartment) with paid health services (formal or informal, private or publicly funded)

3 Boarding house (includes rented room)

4 Assisted living (includes group home, retirement home, supervised living setting)

5 Residential care (long-term care facility, convalescent care, nursing home)

6 Shelter (includes night shelter, refuges, hostels for homeless)

7 Public place (includes residing in the street, parks and other public spaces)

8 Other

-50 Not available, temporarily

-70 Asked, unknown

For reporting purposes, the response choices have been grouped as follows:
Home (private, without services) = code 1
Home (private, with services) = code 2
Boarding house = code 3
Assisted living = code 4
Residential care = code 5
Shelter = code 6
Public place = code 7
Other = code 8

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations.

Interpretation considerations: This indicator, along with Admission by Pre-Hospital Living Arrangements, provides information on the home environment prior to admission, and can be compared to the post-discharge environment in the measurement of outcomes.

Primary Reason for Waiting for Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

Describes the distribution of clients by primary reason waiting to be discharged from a facility/agency, based on the response choice for data element 90A Primary Reason for Waiting for Discharge. The response choices for this data element are:

Location
1.1 Assisted-living/supportive housing
1.2 Residential care (LTC/nursing home

1.3 Complex continuing care/chronic care
1.4 Acute care
1.5 Transitional care/convalescent care
1.6 Boarding house/rooming house
1.7 Inpatient mental health care
1.8 Palliative care
1.9 Other location

Services
2.1 Facility-based ambulatory care
2.2 Private-pay therapy/nursing/personal support
2.3 Addiction services
2.4 Community services (includes transportation)
2.5 Home care
2.6 Other services

Home Modifications/Equipment
3.1 Home modifications
3.2 Equipment (e.g. power wheelchair)
3.3 Other home modifications/equipment

Personal
4.1 Informal support
4.2 Other personal
-70 Unknown

Inclusions/exclusions: Response code -70 (Unknown) is included in the denominator for percentage calculations.

Referral Source

Available in

- NRS Comparative Reports > Admissions Profile > 1. Admission by Referral Source
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

Describes the general sources of client referral to rehabilitation, based on response coded for element 22 Referral Source. The coding options for this element are:

01 Self/Family

02 Inpatient acute unit, same facility

03 Inpatient acute unit, different facility

04 Rehabilitation unit, same facility

05 Rehabilitation unit, different facility (specialty or general facility)

06 Ambulatory care service (facility-based)

07 Private practice (primary care services, for example, MD, PT)

08 Drug dependency service

09 Community services (including public health, transportation services)

10 Residential care facility (includes long-term care, continuing care, nursing home)

11 Legal service (police, parole officer, court)

12 Educational agency

13 Home care agency

97 Other (includes rehabilitation outreach services)

-50 Not available, temporarily

-70 Asked, unknown

For reporting purposes, the responses have been grouped into categories as follows:
Acute care, inpatient: Referral Source = 02, 03
Other rehab, inpatient: Referral Source = 04, 05, 97
Long-term care: Referral Source = 10
Home/community: Referral Source = 01, 06 to 09, 11 to 13

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations. Excludes (Un)planned Discharge records.

Rehabilitation Client Group

Available in

- All NRS Quick Indicators except the Data Quality Indicators Report
- All NRS Comparative Reports except Resource Utilization reports
- All NRS Analytical Reports

Within the NRS, a client is categorized into 1 of 17 health condition groups, known as Rehabilitation Client Groups (RCGs). The RCG selected for a particular client is based on the condition that best describes the primary reason for the client's admission to the inpatient rehabilitation unit or facility—for example, stroke or limb amputation. Some RCGs are further divided into subgroups in order to facilitate more specific analysis of groups that contain large numbers of rehabilitation clients—for example, left- and right-sided strokes. Most NRS eReports outline only the 17 major groups, though the NRS Analytical Reports allow for drilling down to the more specific level of RCG Subgroup. The 17 major RCG groups are as follows:

1. Stroke
2. Brain Dysfunction
3. Neurological Conditions
4. Spinal Cord Dysfunction
5. Amputation of Limb
6. Arthritis
7. Pain Syndromes

8. Orthopedic Conditions
9. Cardiac
10. Pulmonary
11. Burns
12. Congenital Deformities
13. Other Disabling Impairments
14. Major Multiple Trauma
15. Developmental Disabilities
16. Debility
17. Medically Complex

Rehabilitation Group

Available in

- NRS Comparative Reports > Resource Utilization Reports
- All NRS Analytical Reports

A type of categorization representing the highest level of diagnostic classification for clinically similar patients and used in the RPG case mix grouping methodology for the NRS.

Rehabilitation Patient Group

Available in

- NRS Comparative Reports > Resource Utilization Reports
- All NRS Analytical Reports

The NRS now includes a case mix grouping methodology known as the Rehabilitation Patient Group (RPG) methodology. This methodology was developed by the Rehabilitation Technical Working Group of Ontario's Joint Policy and Planning Committee (JPPC) using NRS data for Ontario facilities. The JPPC, a joint partnership of the Ontario Hospital Association and the Ontario Ministry of Health and Long-Term Care (MOHLTC), released a summary report based on Ontario data titled *Evaluation and Selection of a Grouper and Weighting Methodology for Adult Inpatient Rehabilitation Care* in October 2006. The RPGs have cost weights associated with them and explain variance in length of stay and other NRS variables of interest to a greater extent than the FIM-FRGs and other methodologies based on the FIM® instrument. They represent a natural transition to a Canadian grouping methodology for inpatient rehabilitation.

There are 83 RPGs, which are stratified from 21 Rehabilitation Groups (RGs). Placement into a specific RG depends on the coded RCG for each patient, and assignment into a specific RPG is further based on Motor and Cognitive Function Scores at Admission and age. These factors are used to report client data in more clinically homogeneous groups for better comparability. For further details on the specific RPG algorithms, please consult CIHI's *Rehabilitation Patient Group (RPG) Grouping Methodology and Weights* document, available from the CIHI website at www.cihi.ca/casemix.

Each Rehabilitation Group has at least one RPG. The lower RPG numbers for a given RG are made up of clients that generally have lower Function Scores on admission (based on FIM®

instrument). In certain levels of the classification of select RGs, client age is also used as a grouping factor. Conversely, the higher RPG numbers for a given RG are made up of a group of clients who have higher Function Scores at admission. As above, age is again used at certain levels as a grouping factor. For example, within the Stroke RG, there are seven RPGs (1100 to 1160). The first two RPG digits indicate the Stroke RG. The last two RPG digits represent the specific RPG. Clients grouped in the lower two RPGs (1100, 1110) will have lower admission Function Scores compared with stroke clients in the higher RPGs, and these two RPGs are differentiated solely by the client's age. The higher-numbered RPGs (1160, 1150) will include clients with higher admission scores, relative to the other Stroke RPGs. RGs with less variation in age and Function Scores at admission will have fewer RPGs.

Groupings and naming conventions for the various RPG levels are presented in the Rehabilitation Patient Groups table, which follows.

Inclusions/exclusions: RPG calculation requires completion of elements 8 Birth Date, 34 RCG and 41 to 58 (the FIM® instrument on the admission assessment).

Interpretation considerations: The RPG indicators in the NRS Comparative Reports and NRS Analytical Reports are designed to differentiate between groups of clients with the same rehabilitation diagnosis (RCG and RG). The RPG grouping method attempts to "level the playing field" by categorizing RGs (and RCGs) into homogeneous groups based on age and FIM® instrument Motor and Cognitive scores at admission. This grouping makes comparisons between peer groups somewhat more meaningful, and may be used to support other findings in the comparative reports. For example, if a facility with a longer average length of stay (LOS) compared to its peer group is noted to admit a high proportion of stroke clients in the 1100, 1110 and 1120 RPGs (that is, clients who use relatively more resources based on the RPG methodology), this information may help to partially account for the longer average LOS for that facility.

For further details on these RPG methodologies, please consult CIHI's *Rehabilitation Patient Group (RPG) Grouping Methodology and Weights* document, available from the CIHI website at www.cihi.ca/casemix.

Rehabilitation Patient Groups

RG (and Associated RG Numeric Code)	RCG Codes Included in RG	RPG Levels
Stroke (11)	1.1, 1.2, 1.3, 1.4, 1.5, 1.9	1100 to 1160
Traumatic Brain Injury (12)	2.2, 2.21, 2.22	1200 to 1250
Non-Traumatic Brain Injury (13)	2.1, 2.9	1300 to 1330
Neurological (14)	3.1, 3.2, 3.3, 3.4, 3.5, 3.8, 3.9	1400 to 1430
Traumatic Spinal Cord Injury (15)	4.2, 4.21, 4.211, 4.212, 4.22, 4.2211, 4.2212, 4.2221, 4.2222, 4.23	1500 to 1530
Non-Traumatic Spinal Cord Injury (16)	4.1, 4.11, 4.111, 4.112, 4.12, 4.1211, 4.1212, 4.1221, 4.1222, 4.13	1600 to 1640
Amputation, Non–Lower Extremity (17)	5.1, 5.2, 5.9	1700 to 1710
Amputation, Lower Extremity (18)	5.3, 5.4, 5.5, 5.6, 5.7	1800 to 1830
Osteoarthritis (19)	6.2	1900 to 1910
Rheumatoid Arthritis and Other Arthritis (20)	6.1, 6.9	2000 to 2010
Pain (21)	7.1, 7.2, 7.3, 7.9	2100 to 2110
Fractures of Lower Extremity (22)	8.1, 8.11, 8.12, 8.2, 8.3	2200 to 2250
Replacement of Lower Extremity (23)	8.5, 8.51, 8.52, 8.53, 8.54, 8.6, 8.61, 8.62, 8.63, 8.64, 8.7, 8.71, 8.72, 8.73, 8.74	2300 to 2350
Other Orthopedic (24)	8.9	2400 to 2440
Cardiac (25)	9.1	2500 to 2540
Pulmonary (26)	10.1, 10.9	2600 to 2630
Burns (27)	11.1	2700
Major Multiple Trauma, Other Multiple Trauma and Major Multiple Fracture (28)	14.9, 8.4	2800 to 2840
Major Multiple Trauma, With Brain or Spinal Cord Injury (29)	14.1, 14.2, 14.3	2900 to 2920
Ventilator-Dependent Respiratory Disorders (30)	17.51	3000
Other Disabilities (31)	12.1, 12.9, 13.1, 15.1, 16.1, 17.1, 17.2, 17.31, 17.32, 17.4, 17.52, 17.6, 17.7, 17.8, 17.9	3100 to 3140

Sex

Available in

- NRS Comparative Reports > Admissions Profile > 6. Age at Admission to Facility
- All NRS Analytical Reports

Describes the biological sex of a client. Permits grouping of clients by sex. In Comparative Reports, includes “male” and “female.” In Analytical Reports, also includes category “other,” where applicable.

14 In-Depth: NRS Metrics

14.1 Overview

In response to feedback from a consultation process on health information needs, CIHI launched a collaborative project on health indicators. The purpose of the project was to identify which measures could and should be used to report on the health of Canadians and the health system, and then to compile and disseminate the information widely.[1] The NRS is one of a number of CIHI databases that contribute key information to the resulting CIHI Indicator Framework.

An indicator can be defined as "a measurement tool, screen or flag that is used as a guide to monitor, evaluate and improve the quality of client care, clinical support services and organizational functions that affect outcomes."[2] In the NRS eReports, each indicator is associated with one or more "metrics." This term refers to the numerical data, such as percentages (%), counts (N) or a variety of summary statistics (for example, average (mean), median, standard deviation), that summarize each of the demographic, clinical and administrative indicators available in the NRS eReports.

Some of the metrics listed in the NRS eReports have been derived from two or more NRS data elements. For example, Length of Stay is calculated using the Admission Date, Discharge Date, Service Interruption Start Date and Service Interruption End Date. The metric definitions included in this document identify the NRS data elements that are used in the calculation. For further information on coding and interpretation of individual data elements, refer to the most recent version of the *NRS Rehabilitation Minimum Data Set Manual*.

Tables 14.1 and 14.2 list the metrics that are available for the various NRS eReports. Definitions, descriptions and interpretation considerations for each metric are listed in Section 14.2.

1. CIHI, *National Consensus Conference on Population Health Indicators*, 1999.
2. Canadian Council on Health Services Accreditation, *A Guide to the Development and Use of Performance Indicators* (Ottawa, 1996).

Table 14.1 Availability of metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization. Report numbers are shown for Quick Indicators and Comparative Reports.

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Active Rehab Length of Stay			
Average (Mean)		OD 5, RU 5	OD, OF, RU
Median			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
25th Percentile			OD
75th Percentile			OD
Active Rehab Length of Stay Efficiency			
Average (Mean)		OD 5, RU 5	OD, OF, RU
Median			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
25th Percentile			OD
75th Percentile			OD
Admission Age			
Average (Mean)		OD 1	AP, OD, OF
Standard Deviation			AP, OD, OF
Minimum			AP, OD, OF
Maximum			AP, OD, OF
Body Mass Index (BMI) at Admission			
Average (Mean)		OD 1	AP, OD
Median			AP, OD
Standard Deviation			AP, OD
Minimum			AP, OD
Maximum			AP, OD
25th Percentile			AP, OD
75th Percentile			AP, OD

Table 14.1 Availability of metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization. Report numbers are shown for Quick Indicators and Comparative Reports (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Case Mix Metrics			
Case Mix Clients (COUNT)		RU 3–4	RU 1–2
Case Mix Index (AVG)		RU 3–4	
Case Mix, Length of Stay (COUNT)		RU 3–4	RU 1–2
Cost Weight (AVG)		RU 3–4	RU 1–2
Non-outlier Cases, Days (COUNT)		RU 3–4	RU 1–2
Non-outlier Cases, Rehab Cost Weight (AVG)		RU 3–4	RU 1–2
Outlier Cases, Long Stay Clients (COUNT)			RU 1–2
Outlier Cases, Long Stay Days (COUNT)		RU 3–4	RU 1–2
Outlier Cases, Long Stay Rehab Cost Weight (AVG)		RU 3–4	RU 1–2
Outlier Cases, Short Stay Clients (COUNT)			RU 1–2
Outlier Cases, Short Stay Days (COUNT)		RU 3–4	RU 1–2
Outlier Cases, Short Stay Rehabilitation Cost Weight (AVG)		RU 3–4	RU 1–2
Weighted Cases (COUNT)		RU 3–4	RU 1–2
Clients Achieving Partial or Full Community Reintegration (RNLI)			
Count		OF 5	
Percent		OF 5	
Clients Achieving Service Goals			
Count		OD 3	OD, OF
Percent		OD 3	OD, OF
Clients Admitted			
Count		AP 1–6	AP
Percent		AP 1–6	AP
Clients Discharged			
Count		OD 1, OD 4	OD
Percent		OD 4	OD
Clients Discharged Home Who Were Home Prior to Admission			
Count			OD
Percent	QI 8		OD

Table 14.1 Availability of metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization. Report numbers are shown for Quick Indicators and Comparative Reports (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Clients Followed-Up			
Count		OF 1–2	OF
Percent		OF 1–2	OF
Clients Home Prior to Admission			
Count			OD
Clients Hospitalized Since Discharge			
Count		OF 3	OF
Percent		OF 3	OF
Clients Maintaining Function Score Gain			
Count		OF 3	OF
Percent		OF 3	OF
Clients Maintaining General Health Status			
Count		OF 3	OF
Percent		OF 3	OF
Clients Reporting Improved Health Status			
Count		OD 3	OD
Percent		OD 3	OD
Clients Reporting Improvement in Pain			
Count		OD 3	OD
Percent		OD 3	OD
Clients Reporting Worsening of Pain			
Count		OD 3	OD
Percent		OD 3	OD
Clients With a Complete Admission and Discharge CIHI Cognitive Instrument Assessment			
Count		OD 1	OD
Clients With a Complete Discharge FIM® Instrument Assessment			
Count		OD 1, RU 5	OD, RU
Clients With Service Interruptions			
Count		OD 1	OD
Data Quality Indicators			
Unknown "Referred to Facility Number"	QI 10		
Unknown "Health Care Number"	QI 10		
Unknown "Date Ready for Admission"	QI 10		

Table 14.1 Availability of metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization. Report numbers are shown for Quick Indicators and Comparative Reports (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Days Waiting for Admission			
Count			AP, OD
Average (Mean)	QI 1	OD 5	AP, OD, OF
Median		OD 5	AP, OD
25th Percentile			AP, OD
75th Percentile			AP, OD
Days Waiting for Discharge			
Count			OD
Average (Mean)	QI 5	OD 5	OD, OF
Median		OD 5	OD
25th Percentile			OD
75th Percentile			OD
Length of Stay			
Average (Mean)	QI 6	OD 5, RU 5	OD, OF, RU
Median			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
25th Percentile			OD
75th Percentile			OD
Count			OD, RU
Length of Stay Efficiency			
Average (Mean)	QI 7	OD 5, RU 5	OD, OF, RU
Median			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Onset Days			
Average (Mean)		OD 5	AP, OD, OF
Median		OD 5	AP, OD, OF
Standard Deviation			AP, OD, OF
Minimum			AP, OD, OF
Maximum			AP, OD, OF

Table 14.1 Availability of metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization. Report numbers are shown for Quick Indicators and Comparative Reports (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Patient Days			
Count of Clients		RU 1–2	RU 3–4
Count of Days		RU 1–2	RU 3–4
Post-Admit Comorbid Health Condition ICD-10-CA			
Count			OD
Pre-Admit Comorbid Health Condition ICD-10-CA			
Count			AP, OD
Sex			
Percent		OD 1	
Total Service Interruptions			
Count		OD 1	OD, OF
Total Service Interruption Days			
Average (Mean)		OD 5	OD, OF
Standard Deviation			OD, OF
Minimum			OD, OF
Maximum			OD, OF
Count			OD
Weight (kg) at Admission			
Average (Mean)		OD 1	AP, OD
Median			AP, OD
Standard Deviation			AP, OD
Minimum			AP, OD
Maximum			AP, OD
25th Percentile			AP, OD
75th Percentile			AP, OD

Table 14.2 Availability of Function Score and CIHI Cognitive Score metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization.

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Total Function Score at Admission			
Average (Mean)	QI 2	AP, OD, OF, RU	AP, OD, OF, RU
Median		AP, OD, OF	AP, OD, OF
Standard Deviation		AP, OD, OF	AP, OD, OF
Minimum			AP, OD
Maximum			AP, OD
Total Function Score at Discharge			
Average (Mean)	QI 3	OD, OF, RU	OD, OF, RU
Median		OD, OF	OD, OF
Standard Deviation		OD, OF	OD, OF
Minimum			OD
Maximum			OD
Total Function Score at Follow-Up			
Average (Mean)	QI 9	OF	OF
Median		OF	OF
Standard Deviation		OF	OF
Total Function Score Change			
Average (Mean)	QI 4	OD, RU	OD, RU
Median			OD, RU
Standard Deviation		OD	OD
Minimum			OD
Maximum			OD
Percent		OD	OD
Percent, Standard Deviation		OD	OD
Motor Function Score at Admission			
Average (Mean)		AP, OD, OF	AP, OD, OF
Median		AP, OD, OF	AP, OD, OF
Standard Deviation		AP, OD, OF	AP, OD, OF
Minimum			AP, OD
Maximum			AP, OD

Table 14.2 Availability of Function Score and CIHI Cognitive Score metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Motor Function Score at Discharge			
Average (Mean)		OD, OF	OD, OF
Median		OD, OF	OD, OF
Standard Deviation		OD, OF	OD, OF
Minimum			OD
Maximum			OD
Motor Function Score at Follow-Up			
Average (Mean)		OF	OF
Median		OF	OF
Standard Deviation		OF	OF
Motor Function Score Change			
Average (Mean)		OD	OD
Median			OD
Standard Deviation		OD	OD
Minimum			OD
Maximum			OD
Cognitive Function Score at Admission			
Average (Mean)		AP, OD, OF	AP, OD, OF
Median		AP, OD, OF	AP, OD, OF
Standard Deviation		AP, OD, OF	AP, OD, OF
Minimum			AP, OD
Maximum			AP, OD
Cognitive Function Score at Discharge			
Average (Mean)		OD, OF	OD, OF
Median		OD, OF	OD, OF
Standard Deviation		OD, OF	OD, OF
Minimum			OD
Maximum			OD
Cognitive Function Score at Follow-Up			
Average (Mean)		OF	OF
Median		OF	OF
Standard Deviation		OF	OF

Table 14.2 Availability of Function Score and CIHI Cognitive Score metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Cognitive Function Score Change			
Average (Mean)		OD	OD
Median			OD
Standard Deviation		OD	OD
Minimum			OD
Maximum			OD
CIHI Cognitive Score at Admission			
Average (Mean)		AP, OD, OF	AP, OD, OF
Median		AP, OD, OF	AP, OD, OF
Standard Deviation		AP, OD, OF	AP, OD, OF
Minimum			AP, OD
Maximum			AP, OD
CIHI Cognitive Score at Discharge			
Average (Mean)		OD, OF	OD, OF
Median		OD, OF	OD, OF
Standard Deviation		OD, OF	OD, OF
Minimum			OD
Maximum			OD
CIHI Cognitive Score at Follow-Up			
Average (Mean)		OF	OF
Median		OF	OF
Standard Deviation		OF	OF
CIHI Cognitive Score Change			
Average (Mean)		OD	OD
Median			OD
Standard Deviation		OD	OD
Minimum			OD
Maximum			OD
Percent		OD	OD
Percent, Standard Deviation		OD	OD

Table 14.2 Availability of Function Score and CIHI Cognitive Score metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Self-Care Function Score at Admission			
Average (Mean)			AP, OD
Standard Deviation			AP, OD
Minimum			AP, OD
Maximum			AP, OD
Self-Care Function Score at Discharge			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Self-Care Function Score Change			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Sphincter Function Score at Admission			
Average (Mean)			AP, OD
Standard Deviation			AP, OD
Minimum			AP, OD
Maximum			AP, OD
Sphincter Function Score at Discharge			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Sphincter Function Score Change			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD

Table 14.2 Availability of Function Score and CIHI Cognitive Score metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Transfer Function Score at Admission			
Average (Mean)			AP, OD
Standard Deviation			AP, OD
Minimum			AP, OD
Maximum			AP, OD
Transfer Function Score at Discharge			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Transfer Function Score Change			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Locomotion Function Score at Admission			
Average (Mean)			AP, OD
Standard Deviation			AP, OD
Minimum			AP, OD
Maximum			AP, OD
Locomotion Function Score at Discharge			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Locomotion Function Score Change			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD

Table 14.2 Availability of Function Score and CIHI Cognitive Score metrics across NRS eReports. Report sub-types are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization (cont'd).

Metric	NRS Quick Indicators	NRS Comparative Reports	NRS Analytical Reports
Communication Function Score at Admission			
Average (Mean)			AP, OD
Standard Deviation			AP, OD
Minimum			AP, OD
Maximum			AP, OD
Communication Function Score at Discharge			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Communication Function Score Change			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Social Cognition Function Score at Admission			
Average (Mean)			AP, OD
Standard Deviation			AP, OD
Minimum			AP, OD
Maximum			AP, OD
Social Cognition Function Score at Discharge			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD
Social Cognition Function Score Change			
Average (Mean)			OD
Standard Deviation			OD
Minimum			OD
Maximum			OD

14.2 NRS Metric Definitions (in Alphabetical Order)

Active Rehab Length of Stay

Available in

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-up
- NRS Analytical Reports > Resource Utilization

The difference between elements 29 Date Ready for Discharge and 21 Admission Date for all records submitted. It describes the average period of time (in days) that clients are considered to be in active rehabilitation at the facility, peer and national levels. As such, service interruptions and days waiting for discharge are not included. Requires completion of element 21 on the admission assessment and elements 25A/B (Service Interruption Dates) (if applicable) and 29 on the discharge assessment.

Inclusions/exclusions: Date Ready for Discharge is mandatory to record if element 31 Reason for Discharge is coded as 1 or 2 (Goals met and client discharged/transferred); otherwise, it is optional to record. As of December 2011, Active Rehab LOS is calculated using element 30 Discharge Date in cases where the Date Ready for Discharge element is left blank. This ensures that each client for whom LOS is calculated will also have an Active Rehab LOS calculated, and ensures that the two indicators are based on the same number of people. (Prior to December 2011, records had been excluded from this indicator when the Date Ready for Discharge element was left blank.) Active Rehab LOS will always be less than or equal to the LOS indicator, as it removes any discharge wait time that might exist.

Interpretation considerations: This indicator can be influenced by complexity of the cases accepted by the facility and client characteristics, as well as availability of staffing resources, among other things. Any difference between this indicator and the LOS indicator reflects days waiting for discharge from rehabilitation.

Available metrics: average (mean), median, standard deviation, minimum, maximum, 25th percentile, 75th percentile

Active Rehab Length of Stay Efficiency

Available in

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Comparative Reports >Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-up
- NRS Analytical Reports > Resource Utilization

The change in Total Function Score **per day** of client participation in the rehabilitation program. Calculation is based on Total Function Score Change divided by Active Rehab LOS for **each**

client, averaged over the number of clients. As with the Active Rehab LOS indicator, service interruption days and days waiting for discharge are not included.

Inclusions/exclusions: Requires completion of elements 41 to 58 (all FIM® instrument items) on both the admission and discharge assessments, 21 Admission Date on the admission assessment, 25A/B Service Interruption Dates (if applicable) and 29 Date Ready for Discharge on the discharge assessment.

Interpretation considerations: This indicator is based on two other NRS indicators (Change in Total Function Score and Active Rehab LOS), both of which can be influenced by multiple factors, such as complexity of the cases accepted by the facility, client characteristics, and availability of staffing resources, amongst other things. Care should be exercised when comparing this indicator to results from other facilities.

Available metrics: average (mean), median, standard deviation, minimum, maximum, 25th percentile, 75th percentile

Admission Age

Available in

- NRS Comparative Reports > Admissions Profile > 6. Age at Admission to Facility
- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- All NRS Analytical Reports except Resource Utilization Reports

Age at admission to the rehabilitation facility. Calculated by subtracting element 8 Birth Date from element 21 Admission Date.

Interpretation considerations: Admission records include a data element to indicate if a client's birth date has been estimated (9 Birth Date Estimated). Since all NRS admission records are included in the calculation of age indicators, the accuracy of the values provided may vary depending on the number of records submitted for which the date of birth has been estimated. Additionally, the methodology for calculation of age rounds down to conform with other methodologies used in other CIHI databases.

Available metrics: average (mean), standard deviation, minimum, maximum

Body Mass Index (BMI) at Admission

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

BMI is calculated by dividing the client's admission body weight (in kilograms) by the squared value of the client's height (in metres) – that is, kg/m^2. BMI values are often grouped into four standard categories: underweight (<18.5), normal (18.5-24.9), overweight (25-30), and obese (>30).

Inclusions/exclusions: BMI is only calculated for clients with recorded values for height (element 40A) and weight (element 40B) on admission. BMI data is only available in NRS eReports for fiscal years 2009-2010 and later due to changes in NRS coding specifications.

Interpretation considerations: BMI values are calculated for clients that have height and weight (elements 40A and 40B) data available, regardless of the accuracy of the values coded for these elements. As such, some clients may have BMI values that seem unreasonable or unlikely. This may be due to various measurement or coding issues (e.g., submitting a weight measured in pounds instead of kilograms, a height measured in inches instead of centimetres, etc.).

Available metrics: average (mean), standard deviation, minimum, maximum, 25th percentile, 75th percentile

Case Mix Metrics

Available in

- NRS Comparative Reports > Resource Utilization > RPG Case Mix Reports
- NRS Analytical Reports > Resource Utilization > RPG Case Mix Reports

Case Mix metrics may be found in "Current Methodology" or "Original Methodology" Comparative Reports, or may be named as such in the Analytical Reports. "Current Methodology" values are based on the current rehabilitation cost weights and outlier trim points being used in the RPG Case Mix Methodology (visit www.cihi.ca/casemix for more information on values that are currently being used). "Original Methodology" values for a particular fiscal year are based on the rehabilitation cost weights and outlier trim-points that were in effect during that fiscal year. The "Current Methodology" values permit users to analyze trends over time, whereas the "Original Methodology" values permit users to view the data that would have been seen in reports created in those fiscal years. Note that for the current fiscal year, based on the above-mentioned methodology, reports generated using the "Original Methodology" and the "Current Methodology" will be the same.

Case Mix Clients (COUNT)

The number of clients included in the RPG Case Mix Reports.

Case Mix, Case Mix Index (AVG)

This overall facility indicator, reported in the RPG Case Mix Reports, is calculated as the sum total number of weighted cases divided by the sum total number of complete episodes for the reporting period for the facility.

Case Mix, Length of Stay (COUNT)

The sum of the lengths of stay (number of days from element 21 Admission Date to element 30 Discharge Date) for each completed admission and discharge record pair for the clients included in the RPG Case Mix Reports. Instances in which an admission and discharge occur on the same day are assigned a length of stay value of 1 day.
Inclusions/exclusions: Case Mix, Length of Stay is different from all other lengths of stay reported in NRS eReports in that it ***includes Service Interruption Days***, in addition to including Days Waiting for Discharge. Requires completion of element 21 Admission Date on the admission assessment and 25A/B Service Interruption Dates (if applicable) and 30 Discharge Date on the discharge assessment. In some of the RPG Case Mix Reports, (Un)planned Discharges are excluded as the discharge record is not completed for these clients.

Interpretation considerations: Case Mix Length of Stay can be influenced by many factors, such as complexity of the cases accepted by the facility, number of days waiting for discharge

due to delays in the discharge process, number of days accrued during service interruptions, etc. Care should be used when this indicator is used in isolation to compare between the facility, peer and national levels.

Cost Weight (AVG)

This number is the average rehabilitation cost weight as determined by CIHI's RPG Case Mix Methodology, and includes any adjustments to the weights due to short- or long-stay outliers per the methodology.

Non-Outlier Cases, Days (COUNT)

The total number of days that individual lengths of stay exceeded the short-stay trim point for a particular RPG but did not exceed the trim point that defines long-stay outliers for that RPG (i.e., were non-outlier stays), as described by CIHI's RPG Case Mix Methodology.

Non-Outlier Cases, Rehab Cost Weight (AVG)

The rehabilitation cost weight for individual lengths of stay that exceeded the short-stay trim point for a particular RPG but did not exceed the trim point that defines long-stay outliers as defined by the Ontario Joint Policy and Planning Committee Rehabilitation Patient Group Case Mix Methodology.

Outlier Cases, Long Stay Clients (COUNT)

The number of clients that had individual lengths of stay that exceeded the trim point that defines long-stay outliers for that RPG (i.e., were non-outlier stays), as defined by CIHI's RPG Case Mix Methodology.

Outlier Cases, Long Stay Days (COUNT)

The total number of days that individual lengths of stay have exceeded the trim-point that defines long-stay outliers for a particular RPG, as described by CIHI's RPG Case Mix Methodology. Outlier Days may be attributed to only one client or represent the sum of outlier days from many clients within an RPG.

Outlier Cases, Long Stay Rehab Cost Weight (AVG)

The average rehabilitation cost weight for lengths of stay that exceeded the trim point that defines long-stay outliers for a particular RPG, as defined by CIHI's RPG Case Mix Methodology.

Outlier Cases, Short Stay Clients (COUNT)

The number of clients that had individual lengths of stay less than or equal to the short stay trim point for a particular RPG, and therefore are considered short-stay outliers as described by CIHI's RPG Case Mix Methodology.

Outlier Cases, Short Stay Days (COUNT)

The total number of days accrued for lengths of stay that were less than or equal to the short stay trim point for a particular RPG, as described by CIHI's RPG Case Mix Methodology. Outlier days may be attributed to only one client or may represent the sum of outlier days from many clients within an RPG.

Outlier Cases, Short Stay Rehab Cost Weight (AVG)

The average rehabilitation cost weight for lengths of stay less than or equal to the short stay trim point for a particular RPG, as described by CIHI's RPG Case Mix Methodology.

Weighted Cases (COUNT)

Calculated as the average cost weight, multiplied by the number of complete episodes. An episode is considered as complete when both the admission and discharge records have been received by CIHI and the discharge date falls in the current reporting quarter.

Clients Achieving Partial or Full Community Reintegration (RNLI)

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 5. Clients Achieving Partial or Full Community Reintegration

The Reintegration to Normal Living Index (RNLI) measures a client's perception of his or her post-rehabilitation capabilities in terms of self-care, work, social activities and relationships, etc. This indicator calculates the number and percentage of clients who scored either 1 (Partial Integration) or 2 (Full Integration) on follow-up for each RNLI domain:

- Move around living quarters
- Move around community
- Take trips out of town
- Comfortable with how self-care needs are met
- Spend most days occupied in work activity
- Able to participate in recreational activities
- Participate in social activities
- Assume a role in family which meets self and family needs
- Comfortable with personal relationships
- Comfortable with self in the company of others
- Can deal with life events as they happen

Inclusions/exclusions: Requires completion of all RNLI domains on the follow-up assessment. Results are reported at the facility, peer and national levels.

Interpretation considerations: The scoring scale for this tool was adapted with permission from the original tool developed by S. Wood-Dauphinee.

Available metrics: count, percent

Clients Achieving Service Goals

Available in

- NRS Comparative Reports > Outcomes at Discharge > 3. Clinical Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

This indicator reports on those clients at discharge who have met the rehabilitation goals set by the client and the rehabilitation team at the beginning of the rehabilitation stay. It is reported as an overall number and as a percentage of all clients.

Inclusions/exclusions: The indicator is calculated based on all discharge records with 31 Reason for Discharge coded as 1 or 2 (Goals met and client discharged/transferred). Records with Admission Class = 4 (Un)planned Discharge are not included in the percentage calculation of this indicator.

Interpretation considerations: The team determines whether or not a client has met his or her rehabilitation goals at the time of discharge. These goals are ideally developed at admission and are functional and measurable. A client who has met the majority of the goals at the time of discharge can be considered to have "met" the goals. Note that meeting rehabilitation goals does not necessarily imply a return to a client's pre-injury level of function, only that the client has progressed as anticipated by the team.

Available metrics: count, percent

Clients Admitted

Available in

- NRS Comparative Reports > Admissions Profile > Reports 1 to 6
- NRS Analytical Reports > Admissions Profile

Clients admitted to rehabilitation in a particular reporting period.

Available metrics: count, percent

Clients Discharged

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Comparative Reports > Outcomes at Discharge > 4. Discharge Destination
- NRS Analytical Reports > Outcomes at Discharge

Clients discharged from rehabilitation in a particular reporting period.

Inclusions/exclusions: Clients with Admission Class = 4 or Discharge Reason = 8 are excluded from this count.

Available metrics: count, percent

Clients Home Prior to Admission

Available in:

- NRS Analytical Reports > Outcomes at Discharge

This indicator looks at the count of clients who were home prior to their inpatient rehabilitation stay. Requires completion of 14 Pre-Hospital Living Setting.

Inclusions/exclusions: This metric includes all records in which clients had Pre-Hospital Living Setting = 1, 2 or 3. Clients with Admission Class = 4 or Discharge Reason = 8 are excluded from this count.

Available metrics: count

Clients Discharged Home Who Were Home Prior to Admission

Available in:
- NRS Quick Indicators > 8. Percent Discharged Home Who Were Home Prior to Admission Across Rehabilitation Client Groups (RCGs)
- NRS Analytical Reports > Outcomes at Discharge

This indicator looks at the percentage of clients returning home on discharge from rehabilitation who were living at home prior to admission. Requires completion of 14 Pre-Hospital Living Setting and 15 Post-Discharge Living Setting.

Inclusions/exclusions: The numerator for the percentage calculation includes all records in which *both* the Pre-Hospital Living Setting *and* the Post-Discharge Living Setting = 1 or 2 or 3 (home). The denominator is the number of discharged clients that had admission records with Pre-Hospital Living Setting = 1 or 2 or 3. Clients with Admission Class = 4 or Discharge Reason = 8 are excluded from this denominator.

Available metrics: count, percent

Clients Followed Up

Available in
- NRS Comparative Reports > Outcomes at Follow-Up > 1. Follow-Up Living Arrangements
- NRS Comparative Reports > Outcomes at Follow-Up > 2. Follow-Up Living Setting
- NRS Analytical Reports > Outcomes at Follow-Up

Clients who received a follow-up assessment in a particular reporting period.

Available metrics: count, percent

Clients Hospitalized Since Discharge

Available in
- NRS Comparative Reports > Outcomes at Follow-Up > 3. Client Follow-Up Count
- NRS Analytical Reports > Outcomes at Follow-Up

The number and percentage of follow-up clients with data element 73A Hospitalization Since Discharge = 1 (Yes), out of the total number of follow-up assessments reported.

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations.

Interpretation considerations: This indicator only describes the proportion of rehospitalizations since discharge from rehabilitation. Although the length of stay in hospital and reason for hospitalization are collected on follow-up, these indicators are not reported at the aggregate level.

Available metrics: count, percent

Clients Maintaining Function Score Gain

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 3. Client Follow-Up Count
- NRS Analytical Reports > Outcomes at Follow-Up

The number and percentage of clients with a Follow-Up Total Function Score equal to or greater than their Discharge Total Function Score, for all follow-up assessments reported. See "Total Function Score" in the section on Summary Functional Assessment Scores for further details on the calculation of this indicator.

Inclusions/exclusions: Requires completion of elements 41 to 58 on both the discharge and follow-up assessments.

Interpretation considerations: These scores may give some indication of the proportion of clients maintaining their functional levels post-discharge. For facilities that choose to follow up only a specific client segment, the results may not be representative of all clients discharged from that facility.

Available metrics: count, percent

Clients Maintaining General Health Status

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 3. Client Follow-Up Count
- NRS Analytical Reports > Outcomes at Follow-Up

The number and percentage of follow-up clients reporting the same or improved 70 General Health Status at the follow-up assessment as compared to the discharge assessment. An example of improved health status would be a report of Fair on discharge and Good at follow-up.

Inclusions/exclusions: This indicator requires completion of element 70 on both the discharge and follow-up assessments. Records with a response code of 8 (Unable to assess) for either the discharge or follow-up assessment are not included in the calculation of N. Follow-up records with element 70 = 8 (Unable to assess) are included in the denominator for percentage calculations.

Interpretation considerations: This indicator may give some indication of the proportion of clients reporting maintained or improved health status on follow-up. For facilities that choose to follow up only a specific client segment, the results may not be representative of all clients discharged from that facility.

Available metrics: count, percent

Clients Reporting Improved Health Status

Available in

- NRS Comparative Reports > Outcomes at Discharge > 3. Clinical Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Discharge

The number and percentage of clients reporting improved 70 General Health Status on the discharge assessment compared to the admission assessment. This is one of the outcome indicators in the NRS and is based on a client-report data element. This data element was derived from the 1996 National Population Health Survey developed by Statistics Canada. An example of improved health status would be a client who had reported his or her health status as Poor on admission reporting it to be Good at discharge. This indicator requires completion of data element 70 on both the admission and the discharge assessments.

Inclusions/exclusions: The N value excludes records with a response code of 8 (Unable to assess) on element 70 for either the admission or discharge assessment. The denominator for the percentage calculation includes all discharge records.

Interpretation considerations: This indicator describes only those clients reporting an improvement in health status over the course of the rehabilitation stay. The balance of the percentage value represents clients who reported either no change in health status, or a worsening of health status from admission to discharge, or were unable to be assessed for that element. Additionally, the General Health Status data element is based on the client's perception of his or her overall health status rather than a measured observation, and therefore has a qualitative nature.

Available metrics: count, percent

Clients Reporting Improvement in Pain

Available in

- NRS Comparative Reports > Outcomes at Discharge > 3. Clinical Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Discharge

The number and percentage of clients reporting pain on admission that reported either less pain or no pain on the discharge assessment, based on the results coded for elements 59A–C Impact of Pain. These elements were derived from the 1996 National Population Health Survey developed by Statistics Canada. This is one of the outcome indicators in the NRS and is based on client reporting.

The indicator is calculated based on the Pain Score: the sum of the scores from data elements 59B (Intensity of Pain/Discomfort) and 59C (Activity Limitation Due to Pain/Discomfort). The score ranges from 4 to 9, where 4 is severe pain with most activities restricted and 9 is mild pain with no activity restrictions. This indicator is calculated using all records for which Presence of Pain (59A) = yes on admission, and where the difference between Pain Score on admission and Pain Score on discharge is positive (i.e., smaller number on admission than on discharge).

Inclusions/exclusions: Records are excluded where 59A = Client Unable to Answer on the admission and/or discharge assessment.

Interpretation considerations: This indicator describes only those clients showing an increase in Pain Score over the course of the rehabilitation stay. Note that a higher Pain Score in this case represents less overall pain and/or fewer activities restricted by pain. The balance of the percentage value represents clients who showed either no change in Pain Score, or a decrease in Pain Score from admission to discharge, or were unable to be assessed for that element. Additionally, element 59 Impact of Pain is based on the client's perception of the overall pain level rather than a measured observation, and therefore has a qualitative nature.

Available metrics: count, percent

Clients Reporting Worsening of Pain

Available in

- NRS Comparative Reports > Outcomes at Discharge > 3. Clinical Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Discharge

The number and percentage of clients reporting pain on discharge that had reported no pain on the admission assessment, or those reporting a greater degree of pain on discharge than was recorded on admission. Comparison is based on the results coded for elements 59A–C Impact of Pain. These elements were derived from the 1996 National Population Health Survey developed by Statistics Canada. This is one of the outcome indicators in the NRS and is based on client reporting.

The indicator is calculated based on Presence of Pain (59A) and based on the Pain Score: the sum of the scores from data elements 59B (Intensity of Pain/Discomfort) and 59C (Activity Limitation Due to Pain/Discomfort). The Pain Score ranges from 4 to 9, where 4 is severe pain with most activities restricted and 9 is mild pain with no activity restrictions. This indicator is calculated using all records where Presence of Pain (59A) = yes on discharge and/or where the Pain Score has decreased from admission to discharge (i.e., larger number on admission than on discharge).

Inclusions/exclusions: Records are excluded where 59A = Client Unable to Answer on the admission and/or discharge assessment.

Interpretation considerations: This indicator describes only those clients having pain on discharge that did not have pain on admission, or those showing a decrease in Pain Score over the course of the rehabilitation stay. Note that a higher Pain Score in this case represents less overall pain and/or fewer activities restricted by pain. The balance of the percentage value represents clients who showed either no change in Pain Score, or an increase in Pain Score from admission to discharge, or were unable to be assessed for that element. Additionally, element 59 Impact of Pain is based on the client's perception of the overall pain level rather than a measured observation, and therefore has a qualitative nature.

Available metrics: count, percent

Clients with a Complete Admission and Discharge CIHI Cognitive Instrument Assessment

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Analytical Reports > Outcomes at Discharge

The total number of clients for which a CIHI Cognitive assessment was performed at the time of discharge.

Available metrics: count

Clients with a Complete Discharge FIM® Instrument Assessment

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Resource Utilization

The total number of clients for which a FIM® instrument assessment was performed at the time of discharge.

Available metrics: count

Clients with Service Interruptions

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Analytical Reports > Outcomes at Discharge

The total number of clients who had at least one service interruption in a particular reporting period. Occurs when a client is unable to participate in the rehabilitation program due to a health condition that may or may not result in a transfer out of the rehabilitation bed or unit. Service interruptions are generally coded only when the client misses more than one day of active rehabilitation and the condition is felt to impact the client's progress in rehabilitation. This does not include weekend passes to visit family at home or temporary bed closures.

Available metrics: count

Data Quality Indicators

Available in

- NRS Quick Indicators > 10. Data Quality Indicators Report

Four data quality indicators are provided in this grid-formatted report. Columns indicating facility, peer and national values are provided. The indicators are expressed as both the number of records used in the calculation (N) and as percentages. The four indicators are a subset of the indicators in the NRS *Data Quality Report for Provinces/Territories*, which is completed on an annual basis and sent to the deputy ministers of health of each province and territory in an effort to raise awareness and highlight data quality issues. If the report does not show data for one or more of these indicators, it is because the facility does not have any data to show for that fiscal period. The four data quality indicators are described below.

Unknown Referred to Facility Number

This indicator identifies the number of episodes where Referred to Facility Number is coded as Unknown, as calculated below:
A / B * 100 (expressed as a percentage), where
A = The sum of episodes with "99999" (Unknown) coded for data element Referred to Facility Number, by facility.
B = The total number of episodes where data element Referred to Facility Number is mandatory, by facility.

Interpretation considerations: A lower rate for this indicator enhances the ability to monitor post-discharge referral patterns using NRS data.

Unknown Health Care Number

This indicator assesses the extent to which the values -50 or -70 are coded for Health Care Number, which may indicate potentially missing data. Although they are valid responses, -50 or -70 may limit the potential usefulness of related analyses. Participating facilities are encouraged by CIHI to submit health care numbers whenever possible.

The indicator is calculated as
A / B * 100 (expressed as a percentage), where
A = The sum of admission records in the reporting period with -50 (Not available) or -70 (Unknown) coded for Health Care Number.
B = The total number of admission records in the reporting period.

Interpretation considerations: In the NRS, this data element facilitates greater specificity in tracking individual records within a particular episode. Monitoring the level of unknown or unavailable information for this element is important, as the health care number is one of the unique client identifiers on the NRS record that allows for identification and matching of paired records.

Unknown Date Ready for Admission

This indicator identifies the percentage of admission records with data element Date Ready for Admission coded as "unknown," as calculated below:
A / B * 100 (expressed as a percentage), where
A = The number of admission records for clients admitted in the reporting period with Date Ready for Admission element (20A) coded as Unknown.
B = The total number of admission records (excluding unplanned discharges) for the reporting period, by facility.

Interpretation considerations: In the NRS, this data element is used to assess the time a person waits between the determination that they are suitable and ready for inpatient rehabilitation and their actual admission. This information can be used to monitor admission patterns and referral processes. Since Date Ready for Admission is used to calculate the Days Waiting for Admission indicator for various NRS reports, participating facilities are encouraged by CIHI to collect the data element whenever possible. NRS records with this data element coded as "unknown" are excluded from calculation of the Date Ready for Admission indicator.

Available metrics: count, percent

Days Waiting for Admission

Available in

- NRS Quick Indicators > 1. Average Days Waiting for Admission Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The number of days between 20B Date Ready for Admission and 21 Admission Date. This is one of the NRS indicators pertaining to accessibility of rehabilitation services.

Inclusions/exclusions: Excludes admission records where element 20A Date Ready for Admission Known = 0 (No).

Interpretation considerations: Due to the option of indicating that Date Ready for Admission is not known, the number of records included in this calculation may be smaller than the overall number of records included in the report. Care should be taken when interpreting this indicator as being representative of the entire inpatient rehabilitation population. The Days Waiting for Admission indicator does not provide specific reasons for delays in admission to rehabilitation. Facilities wishing to track this indicator more closely may consider independently tracking specific reasons for delays in the admission process. A median value and an average value are provided for the Days Waiting for Admission to Rehabilitation indicator. Refer to the Average Onset Days indicator for information about comparing medians and averages.

Available metrics: count, average (mean), median, 25th percentile, 75th percentile

Days Waiting for Discharge

Available in

- NRS Quick Indicators > 5. Average Days Waiting for Discharge Across RCGs

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The number of days from element 29 Date Ready for Discharge to element 30 Discharge Date. The Days Waiting for Discharge indicator describes the average number of days between the date that the client is deemed ready for discharge from the rehabilitation program, and the date that he or she is formally discharged.

Inclusions/exclusions: Excludes records where element 29 Date Ready for Discharge is not completed. This element is mandatory to code when data element 31 Reason for Discharge is coded as 1 or 2 (goals met and client discharged/transferred); otherwise, it is optional to record.

Interpretation considerations: This indicator does not provide specific reasons why delays may exist in discharge from rehabilitation. Facilities wishing to track this indicator more closely may consider independently tracking specific reasons for delays in the discharge process. A median value and an average value are provided for the Days Waiting for Discharge From Rehabilitation indicator. Refer to the Average Onset Days indicator for information about comparing medians and averages.

Available metrics: average (mean), count, median, 25th percentile, 75th percentile

Length of Stay (LOS)

Available in

- NRS Quick Indicators > 6. Average Length of Stay (LOS) Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up
- NRS Analytical Reports > Resource Utilization

The number of days from element 21 Admission Date to element 30 Discharge Date, minus any Service Interruption days (if applicable) for each completed admission and discharge record pair, averaged over all records. Admission Date is included in the count of days for admission class 4, for example, Discharge Date minus Admission Date must be less than 4 days (0-3 days for a length of stay) including the admission date.

Inclusions/exclusions: Length of Stay **excludes** Service Interruption Days but **includes** Days Waiting for Discharge. Requires completion of element 21 on the admission assessment and 25A/B Service Interruption Dates (if applicable) and 30 on the discharge assessment. Depending on the report, (Un)planned Discharges may be excluded, as the discharge record is not completed. Clients admitted and discharged on the same day have an LOS of 1 day.

Interpretation considerations: Length of Stay can be influenced by many factors, such as complexity of the cases accepted by the facility and number of days waiting for discharge due to delays in the discharge process. Care should be used when this indicator is used in isolation to compare between the facility, peer and national levels.

Available metrics: average (mean), median, standard deviation, minimum, maximum, 25th percentile, 75th percentile, count

Length of Stay Efficiency

Available in

- NRS Quick Indicators > 7. Average Length of Stay (LOS) Efficiency Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up
- NRS Analytical Reports > Resource Utilization

The change in Total Function Score **per day** of client participation in the rehabilitation program. Calculation is based on Total Function Score Change divided by LOS for **each client**, averaged over the number of clients. As with the LOS indicator, service interruption days are not included.

Inclusions/exclusions: Requires completion of elements 41 to 58 (all FIM® instrument items) on both the admission and discharge assessments, 21 Admission Date on the admission assessment and 25A/B Service Interruption Dates (if applicable) and 30 Discharge Date on the discharge assessment.

Interpretation considerations: The LOS Efficiency indicator is based on two other NRS indicators (change in Total Function Score and LOS), both of which can be influenced by multiple factors. Care should be exercised when comparing this indicator to results from other facilities.

Available metrics: average (mean), median, standard deviation, minimum, maximum

Onset Days

Available in

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The number of days from element 39 Date of Onset to element 21 Admission Date. This indicator describes the average length of time (in days) between the onset of or the exacerbation of the rehabilitation condition and the date of entry into the rehabilitation program.

Inclusions/exclusions: Records where the Date of Onset is left blank are excluded (this item is not mandatory to code if 19A Admission Class = 4 [Un]planned Discharge).

Interpretation considerations: Large differences between the average value and the median value for Onset Days may be due to the presence of very high values in the data set. Date of Onset for chronic conditions is sometimes erroneously coded as the date that the condition was first diagnosed, rather than the date of the most recent exacerbation. For example, if a client was admitted to rehabilitation on December 30, 2010, for treatment of an exacerbation of

multiple sclerosis and the Date of Onset was coded as June 2006 (date of diagnosis) rather than December 12, 2010 (date of onset of exacerbation), then the submitted Onset Days value for that client will be extremely high and will skew the resulting average for this indicator.
Available metrics: average (mean), median, standard deviation, minimum, maximum

Patient Days

Available in

- NRS Comparative Reports > Resource Utilization > RPG Patient Days reports
- NRS Analytical Reports > Resource Utilization > RPG Patient Days reports

Available metrics: Count of clients, Count of days

Patient Days Clients (COUNT)

The number of clients included in an RPG Patient Days Report. Generally, this is the number of clients receiving inpatient rehabilitation, or occupying rehab beds, at any time during the reporting period of interest. Clients admitted prior to April 1, 2008 that still have no discharge date recorded are excluded from the Patient Days Clients (COUNT).

Patient Days (COUNT)

The number of days clients were in the rehabilitation bed for a particular RPG during the reporting period (e.g., fiscal quarter or year). This indicator is different than length of stay, which can only be calculated for complete (i.e., discharged) episodes. Patient Days are calculated for all complete episodes as well as those incomplete episodes with admission dates in fiscal year 2008-2009 or later.

Calculation: For episodes that started and ended within the reporting period, all days are counted. For episodes that started prior to the start of the reporting period and ended within the reporting period, days from the start of the reporting period to the discharge date are counted. For episodes that started within the reporting period and ended after the reporting period, only days from the admission date to the end of the reporting period are counted. For episodes that started prior to the reporting period and ended after the reporting period, all days within the reporting period are counted. Episodes that started prior to April 1, 2008 and presently remain incomplete (i.e., no discharge date present) do not accrue Patient Days. These episodes are considered to be open in error and including them in these calculations would inappropriately inflate the number of Patient Days.

Inclusions/exclusions: Includes clients admitted in the reporting period or prior to the reporting period and who continued to receive inpatient rehabilitation services in the reporting period. For incomplete episodes that started prior to April 1, 2008, Patient Days are not calculated, as described further above.

Interpretation considerations: Facilities may want to use this information to make high-level comparisons to their MIS statistical data for rehabilitation activity reported to the NRS.

Post-admit Comorbid Health Condition ICD-10-CA

Available in

- NRS Analytical Reports > Outcomes at Discharge

Health conditions that arise after admission and during the rehabilitation stay that affect the client's health/functional status and resource requirements during the rehabilitation program. This includes post-admit complications and/or comorbid conditions that delay, interrupt or compromise the effectiveness of the rehabilitation program or represent high medical risk disorders (e.g. previous cardiac arrest, pulmonary embolus, ruptured aneurysm). Includes conditions of short duration that were resolved during the stay and conditions that persist at discharge.
The number of Post-Admit Comorbid Health Conditions coded at discharge from inpatient rehabilitation. A total of 15 Post-Admit Comorbid Health Conditions can be coded at discharge for each client.
Inclusions/exclusions: Post-Admit Comorbid Health Conditions are only mandatory to record if a health condition(s) arises after admission and during the rehabilitation stay that affects the client's health/functional status and resource requirements during the rehabilitation program.

Interpretation considerations: This indicator reflects Comorbid Health Conditions that arose during the patient's rehabilitation stay. There is a potential data quality issue surrounding inaccurate coding of existing comorbidities twice: at both admission and discharge. As such, some post-admit comorbidities may not be true post-admit comorbidities. Post-admit comorbidities are likely over-estimated. Care should be exercised when comparing this indicator between facilities/jurisdictions.

Available metrics: count

Pre-admit Comorbid Health Condition ICD-10-CA

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

Existing health conditions present at the time of rehabilitation admission that affect the client's health/functional status and resource requirements during the rehabilitation program. This includes pre-admit complications and/or comorbid conditions that delay, interrupt or compromise effectiveness of the rehabilitation program or represent high medical risk disorders (e.g. previous cardiac arrest, pulmonary embolus, ruptured aneurysm).
The number of Pre-Admit Comorbid Health Conditions coded at admission to inpatient rehabilitation. A total of 15 Pre-Admit Comorbid Health Conditions can be coded at admission for each client.
Inclusions/exclusions: Pre-Admit Comorbid Health Conditions are only mandatory to record if they are existing health condition(s) present at the time of admission to facility/unit that affect the client's health/functional status and resource requirements during the rehabilitation program.

Interpretation considerations: Pre-Admit Comorbid Health Conditions are meant to reflect only those that affect the client's health/functional status and resource requirements during the rehabilitation program. Chronic or other conditions that do not meet these criteria may be inappropriately captured – this may lead to over-coding of some conditions. Conversely, comorbidities may not always be coded as often as they should, for a variety of reasons. Care should be exercised when comparing this indicator between facilities/jurisdictions.

Available metrics: count

Sex

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics

Describes the percentage of total clients discharged that are male and the percentage that are female. Denominator used for the percentage calculation includes clients who have identified as *Other*, where applicable.

Available metrics: percent

Total Service Interruptions

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The total number of service interruptions experienced by clients at the facility in the given reporting period. Occur when a client is unable to participate in the rehabilitation program due to a health condition that may or may not result in a transfer out of the rehabilitation bed or unit. Service interruptions are generally coded only when the client misses more than one day of active rehabilitation and the condition is felt to impact the client's progress in rehabilitation. This does not include weekend passes to visit family at home or temporary bed closures.

Available metrics: count

Total Service Interruption Days

Available in

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The number of days occurring during service interruptions (SIs). Total SI Days is calculated by summing the number of days in each reported service interruption (the difference between 25B SI End Date and 25A SI Start Date).

Inclusions/exclusions: In some cases, the metrics associated with this indicator refer to SI Days in a given episode. For instance, SI Days (MAX) refers to the maximum number of SI Days that occurred in a client episode of care. SI Days (AVG), however, refers to the average number of SI Days per SI.

Available metrics: average (mean), standard deviation, minimum, maximum, count

Weight (kg) at Admission

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

A client's recorded body weight at admission, in kilograms (kg).

Inclusions/exclusions: Weight metrics are only shown in NRS eReports for fiscal years 2009-2010 and later due to changes in NRS coding specifications put in place at that time.
Available metrics: average (mean), median, standard deviation, minimum, maximum, 25th percentile, 75th percentile

14.3 NRS Summary Functional Assessment Scores Definitions

The summary functional assessment scores below are the basic score calculations for both the FIM® instrument and CIHI Cognitive data elements. Variations of these scores appear throughout the reports.

NOTE: The functional assessment metrics found in the NRS eReports contain an "**A**", "**AD**", or "**ADF**" at the end of their names. Metrics with an "A" are calculated from clients that have complete functional assessment scores on their admission records. Metrics with "AD" are calculated from clients that have complete functional assessment scores at both admission and discharge. "ADF" indicates metrics that have been calculated on clients having complete assessments at all of admission, discharge and follow-up records. These letters have been added to the metric names to assist users in identifying the client population that is being used for each metric's calculation.

Total Function Score at Admission

Available in

- NRS Quick Indicators > 2. Average Admission Total Function Score Across RCGs
- NRS Comparative Reports > Admissions Profile > 7. Functional Status at Admission to Facility
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge from Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up
- NRS Analytical Reports > Resource Utilization > RPG Case Mix and Functional Status

Total Function Score is the sum of the scores from the 18 FIM® instrument elements (41 to 58, inclusive, in the data set). Each element has a minimum score of 1 and a maximum score of 7, resulting in a value range of 18 to 126. This metric is the sum of the Total Function Scores for each admission record included in the report, divided by the number of admission records. Requires completion of all FIM® instrument data elements (41 to 58) on the admission assessment.

Inclusions/exclusions: The Total Function Score is calculated from records containing complete FIM® instrument codes for data elements 41 to 58, inclusive. Records for which no

FIM® instrument assessment has been completed, for example, records with Admission Class 4 ([Un]planned Discharge), are excluded.

Interpretation considerations: The Total Function Score at Admission can be compared at the facility, peer and national levels, or to the Average Discharge Function Score for that facility. Refer to the *NRS Rehabilitation Minimum Data Set Manual* for more detailed information on coding the various FIM® instrument elements. A more complete picture of client function can be obtained by breaking down the Total Function Score into its motor and cognitive components (see below).

Available metrics: average (mean), median, standard deviation, minimum, maximum

Total Function Score at Discharge

Available in

- NRS Quick Indicators > 3. Average Discharge Total Function Score Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up
- NRS Analytical Reports > Resource Utilization > RPG Case Mix and Functional Status

Total Function Score is the sum of the scores from the 18 FIM® instrument elements (41 to 58, inclusive, in the data set). Each element has a minimum score of 1 and a maximum score of 7, resulting in a value range of 18 to 126. This metric is the sum of the Total Function Scores for each discharge record included in the report, divided by the number of discharge records. Requires completion of all FIM® instrument elements (41 to 58) on the discharge assessment.

Inclusions/exclusions: The Total Function Score is calculated from records containing complete FIM® instrument codes for data elements 41 to 58, inclusive. Records for which no FIM® instrument assessment has been completed, for example, records with Admission Class 4 ([Un]planned Discharge), are excluded.

Interpretation considerations: The Average Discharge Function Score can be compared at the facility, peer and national levels, or to the average Admission Function Score for that facility. The score should be considered along with indicator distributions such as Rehabilitation Client Group, Reason for Discharge, Discharge Living Setting and Arrangement to give a clearer picture of the typical discharge situation for a rehabilitation client. Refer to the *NRS Rehabilitation Minimum Data Set Manual* for more detailed information on coding the various FIM® instrument elements. A more complete picture of client function can be obtained by breaking down the Total Function Score into its motor and cognitive components (see below).

Available metrics: average (mean), median, standard deviation, minimum, maximum

Total Function Score at Follow-Up

Available in

- NRS Quick Indicators > 9. Average Follow-Up Total Function Score Across RCGs
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Outcomes at Follow-Up

Total Function Score is the sum of the scores from the 18 FIM® instrument elements (41 to 58, inclusive, in the data set). Each element has a minimum score of 1 and a maximum score of 7, resulting in a value range of 18 to 126. This metric is the sum of the Total Function Scores for all follow-up records submitted.

Inclusions/exclusions: The Total Function Score is calculated from records containing complete FIM® instrument codes for data elements 41 to 58, inclusive. Records for which no FIM® instrument assessment has been completed, for example, records with Admission Class 4 ([Un]planned Discharge), are excluded. Requires completion of data elements 41 to 58 on the follow-up assessment.

Interpretation considerations: Total Function Score at Follow-Up can be compared to Total Function Score at Discharge as an aggregate outcome measurement. Refer to the *NRS Rehabilitation Minimum Data Set Manual* for more detailed information on coding the various FIM® instrument elements. A more complete picture of client function can be obtained by breaking down the Total Function Score into its motor and cognitive components (see below).

Available metrics: average (mean), median, standard deviation

Total Function Score Change

Available in

- NRS Quick Indicators > 4. Average Change in Total Function Score Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Resource Utilization > RPG Case Mix and Functional Status

Describes the average change in Total Function Score from admission to discharge. This is the difference between the Admission Function Score and Discharge Function Score for each client episode, averaged for all episodes. See Total Function Score in the Summary Functional Assessment Scores section for more details on this indicator.

Inclusions/exclusions: Requires completion of all FIM® instrument elements (41 to 58) on both the admission and discharge assessments.

Interpretation considerations: “Change in function” indicators are expressed as averages. A positive value indicates a score increase and a negative value indicates a score decrease.

Available metrics: average (mean), median, standard deviation, minimum, maximum, percent, percent standard deviation

Total Function Score Change, Percent

This indicator describes the relative change in Total Function Score from admission to discharge. This is calculated for each record as the difference between Total Function Scores on admission and discharge, divided by the score on admission. This value is then averaged over all discharge records.

Inclusions/exclusions: Requires completion of elements 41 to 58 on both the admission and discharge assessments.

Interpretation considerations: The same absolute change in score among clients with low and high function scores on admission will result in a greater percent change in function among those with low scores, compared to those with high scores. In other words, this is a more sensitive indicator for low-functioning client groups compared to higher-functioning groups. For example, an absolute Total Function Score improvement of 20 would result in the following percent changes for two different clients:

Percent Change Calculation Sample

	Admission Score	Discharge Score	Percent Change
Low Function Score	20	40	100% (40 - 20 / 20)
High Function Score	80	100	25% (100 - 80 / 80)

In this example, the Percent Change value for these two clients would be the average of both percent changes: 62.5% = [(25% + 100%) / 2].

Note: Percent change should be interpreted carefully. The FIM® instrument is an ordinal scale rather than an interval scale, so the difference between a score of a 2 and a 3 on the FIM® instrument scale is not necessarily equivalent to the difference between a 4 and a 5. As such, a 100% change in a FIM® instrument score does not imply that a client has shown 100% improvement in function. The Percent Change indicator is intended to show average relative change in FIM® instrument scores only, and should not be used as a measure of average improvement in client function.

Motor Function Score at Admission

Available in

- NRS Comparative Reports > Admissions Profile > 7. Functional Status at Admission to Facility
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 13 FIM® instrument elements (41 to 53, inclusive) that assess various components of motor function (self-care, sphincter control, transfers, etc.) at the time of admission. The Motor Function Score ranges from 13 to 91, and provides a score that describes a client's motor function based on the elements tested.

Inclusions/exclusions: Motor Function Score is calculated from admission records containing complete FIM® instrument Total Function Scores (that is, both motor and cognitive components). Records for which no FIM® instrument assessment has been completed, for example, records with Admission Class 4 ([Un]planned Discharge), are excluded.

Interpretation considerations: The Motor Function Score isolates the motor components of the FIM® instrument and allows for a better comparison of motor function between FIM® instrument assessments.

Available metrics: average (mean), median, standard deviation, minimum, maximum

Motor Function Score at Discharge

Available in:

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 13 FIM® instrument elements (41 to 53, inclusive) that assess various components of motor function (self-care, sphincter control, transfers, etc.) at the time of discharge. The Motor Function Score ranges from 13 to 91, and provides a score that describes a client's motor function based on the elements tested.

Inclusions/exclusions: Motor Function Score is calculated from discharge records containing complete FIM® instrument Total Function Scores (that is, both motor and cognitive components). Records for which no FIM® instrument assessment has been completed, for example, records with Admission Class 4 ([Un]planned Discharge), are excluded.

Interpretation considerations: The Motor Function Score isolates the motor components of the FIM® instrument and allows for a better comparison of motor function between FIM® instrument assessments.

Available metrics: average (mean), median, standard deviation, minimum, maximum

Motor Function Score at Follow-Up

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 13 FIM® instrument elements (41 to 53, inclusive) that assess various components of motor function (self-care, sphincter control, transfers, etc.) at the time of follow-up assessment. The Motor Function Score ranges from 13 to 91 and provides a score that describes a client's motor function based on the elements tested.

Inclusions/exclusions: Motor Function Score is calculated from follow-up records containing complete FIM® instrument Total Function Scores (that is, both motor and cognitive components). Records for which no FIM® instrument assessment has been completed are excluded.

Interpretation considerations: The Motor Function Score isolates the motor components of the FIM® instrument and allows for a better comparison of motor function between FIM® instrument assessments.

Available metrics: average (mean), median, standard deviation

Motor Function Score Change

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Analytical Reports > Outcomes at Discharge

Describes the average change in Motor Function Score from admission to discharge. This is the difference between the Admission Motor Function Score and Discharge Motor Function Score for each client episode, averaged for all episodes. See "Motor Function Score" in the Summary Functional Assessment Scores section for more details on this indicator.

Inclusions/exclusions: Requires completion of all FIM® instrument motor elements (41 to 53) on both the admission and discharge assessments.

Interpretation considerations: "Change in function" indicators are expressed as averages. A positive value indicates a score increase and a negative value indicates a score decrease.

Available metrics: average (mean), median, standard deviation, minimum, maximum

Cognitive Function Score at Admission

Available in

- NRS Comparative Reports > Admissions Profile > 7. Functional Status at Admission to Facility
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the five FIM® instrument elements (54 to 58, inclusive) that assess various components of cognitive function (communication, social interaction, problem solving, etc.) at the time of admission. The Cognitive Function Score ranges from 5 to 35 and provides a score that describes a client's cognitive function based on the elements tested.
Inclusions/exclusions: Cognitive Function Score is calculated from admission records containing complete FIM® instrument Total Function Scores (that is, both motor and cognitive components). Records for which no FIM® instrument assessment has been completed, for example, records with Admission Class 4 ([Un]planned Discharge), are excluded.

Interpretation considerations: The Cognitive Function Score isolates the cognitive components of the FIM® instrument and allows for a better comparison of cognitive function between FIM® instrument assessments.

Available metrics: average (mean), median, standard deviation, minimum, maximum

Cognitive Function Score at Discharge

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the five FIM® instrument elements (54 to 58, inclusive) that assess various components of cognitive function (communication, social interaction, problem solving, etc.) at the time of discharge. The Cognitive Function Score ranges from 5 to 35 and provides a score that describes a client's cognitive function based on the elements tested.

Inclusions/exclusions: Cognitive Function Score is calculated from discharge records containing complete FIM® instrument Total Function Scores (that is, both motor and cognitive components). Records for which no FIM® instrument assessment has been completed, for example, records with Admission Class 4 ([Un]planned Discharge), are excluded.

Interpretation considerations: The Cognitive Function Score isolates the cognitive components of the FIM® instrument and allows for a better comparison of cognitive function between FIM® instrument assessments.

Available metrics: average (mean), median, standard deviation, minimum, maximum

Cognitive Function Score at Follow-Up

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the five FIM® instrument elements (54 to 58, inclusive) that assess various components of cognitive function (communication, social interaction, problem solving, etc.) at the time of follow-up assessment. The Cognitive Function Score ranges from 5 to 35 and provides a score that describes a client's cognitive function based on the elements tested.

Inclusions/exclusions: Cognitive Function Score is calculated from follow-up records containing complete FIM® instrument Total Function Scores (that is, both motor and cognitive components). Records for which no FIM® instrument assessment has been completed are excluded.

Interpretation considerations: The Cognitive Function Score isolates the cognitive components of the FIM® instrument and allows for a better comparison of cognitive function between FIM® instrument assessments.

Available metrics: average (mean), median, standard deviation

Cognitive Function Score Change

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Analytical Reports > Outcomes at Discharge

Describes the average change in Cognitive Function Score from admission to discharge. It is calculated as the difference between the Admission Cognitive Function Score and Discharge Cognitive Function Score for each client episode, averaged for all episodes. See Cognitive

Function Score in the Summary Functional Assessment Scores section for more details on the calculation of this indicator.

Inclusions/exclusions: Requires completion of all FIM® instrument cognitive elements (54 to 58) on both the admission and discharge assessments.

Interpretation considerations: "Change in function" indicators are expressed as averages. A positive value indicates a score increase and a negative value indicates a score decrease.

Available metrics: average (mean), median, standard deviation, minimum, maximum

CIHI Cognitive Score

This is the sum of the CIHI Cognitive elements, 64 to 69, inclusive (four Communication elements, one Financial Management element and one Orientation element) and describes the client's level of function as it pertains to the additional cognitive elements tested in the NRS. Refer to the *NRS Rehabilitation Minimum Data Set Manual* for details on score ranges, as the scales vary between these elements. The CIHI Cognitive Score further assesses cognitive function in addition to the FIM® instrument Cognitive Function Score.

Inclusions/exclusions: Includes all records for ages older than 13, where element 19A Admission Class is initial rehabilitation, continuing rehabilitation, short-stay or readmission class and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations:

- The CIHI Cognitive elements were found to be valid and reliable in the assessment of cognitive function by the National Rehabilitation Advisory Group,[3] and were also shown to improve precision of measurement of cognitive domain over the FIM® instrument cognitive sub-scale.
- Since there is a screening question to determine if the CIHI Cognitive assessment is required, the total number of clients reported in this indicator may be less than the number reported in the FIM® instrument functional scores.
- The scoring scales for the FIM® instrument and CIHI Cognitive assessments are intentionally not identical. As such, the two scores cannot be compared, but rather should be used together to obtain a more complete picture of a client's functional level.
- CIHI Cognitive elements with a score of 8 are recoded as 1 for the purposes of this calculation.
- Recently, Uniform Data System for Medical Rehabilitation (UDS_{MR}) completed a Rasch analysis on the CIHI Cognitive elements on a cohort of NRS stroke clients. Overall, it found these six elements to have very good reliability and significant inter-item correlation. However, it was noted that the Financial Management element may be measuring another construct than what it is intended to measure, and that the Orientation element may be too easy. Consequently, CIHI will investigate modifying the scale in the future.

CIHI Cognitive Score at Admission

Available in

3. CIHI Pilot Project Report: *Rehabilitation Data Standards for Canada* (February 1999).

- NRS Comparative Reports > Admissions Profile > 7. Functional Status at Admission to Facility
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

Requires completion of all CIHI Cognitive elements (64 to 69) on the admission assessment.

Inclusions/exclusions: Includes all records for ages older than 13, where element 19A Admission Class is initial rehabilitation, continuing rehabilitation, short-stay or readmission class and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations: CIHI Cognitive elements with a score of 8 are recoded as 1 for the purposes of this calculation. The CIHI Cognitive Score at Admission can be compared at the facility, peer and national levels, or to the CIHI Cognitive Score at Discharge for that facility.

Available metrics: average (mean), median, standard deviation, minimum, maximum

CIHI Cognitive Score at Discharge

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

Requires completion of all CIHI Cognitive elements (64 to 69) on the discharge assessment.

Inclusions/exclusions: Includes all records for ages older than 13, where element 19A Admission Class is initial rehabilitation, continuing rehabilitation, short-stay or readmission class and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations: CIHI Cognitive elements with a score of 8 are recoded as 1 for the purposes of this calculation. The CIHI Cognitive Score at Discharge can be compared at the facility, peer and national levels, or to the CIHI Cognitive Score at Admission for that facility. The score can be considered along with indicator distributions such as Rehabilitation Client Group, Reason for Discharge, Discharge Living Setting and Arrangement to give a clearer picture of the typical discharge situation for a rehabilitation client.

Available metrics: average (mean), median, standard deviation, minimum, maximum

CIHI Cognitive Score at Follow-Up

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Outcomes at Follow-Up

Requires completion of all CIHI Cognitive elements (64 to 69) on the follow-up assessment.

Inclusions/exclusions: Includes all records for ages older than 13, where element 19A Admission Class is initial rehabilitation, continuing rehabilitation, short-stay or readmission class and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations: CIHI Cognitive elements with a score of 8 are recoded as 1 for the purposes of this calculation. The CIHI Cognitive Score at Follow-Up can be compared at the facility, peer and national levels or to the CIHI Cognitive Score at Discharge for that facility. The score can be considered along with indicator distributions such as Rehabilitation Client Group, Reason for Discharge, Discharge Living Setting and Arrangement to give a clearer picture of the typical discharge situation for a rehabilitation client.

Available metrics: average (mean), median, standard deviation

CIHI Cognitive Score Change

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Analytical Reports > Outcomes at Discharge

Describes the average change in CIHI Cognitive Scores from admission to discharge for all records submitted. This is the difference between the admission CIHI Cognitive Score and discharge CIHI Cognitive Score for each client episode, averaged for all episodes. Requires completion of all CIHI Cognitive elements (64 to 69, inclusive) on both the admission and discharge assessments.

Inclusions/exclusions: Includes all records for those older than 13 years of age, where element 19A Admission Class is initial rehabilitation, continuing rehabilitation, short-stay or readmission class and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations: “Change in function” indicators are expressed as averages. A positive value indicates a score increase and a negative value indicates a score decrease.

Available metrics: average (mean), median, standard deviation, minimum, maximum, percent, percent standard deviation

Self-Care Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument motor items that assess basic activities necessary for daily personal care: Eating, Grooming, Bathing, Dressing Upper Body, Dressing Lower Body and Toileting.

Available metrics: average (mean), standard deviation, minimum, maximum

Self-Care Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument motor items that assess basic activities necessary for daily personal care: Eating, Grooming, Bathing, Dressing Upper Body, Dressing Lower Body and Toileting.

Available metrics: average (mean), standard deviation, minimum, maximum

Self-Care Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument motor items that assess basic activities necessary for daily personal care: Eating, Grooming, Bathing, Dressing Upper Body, Dressing Lower Body and Toileting.

Available metrics: average (mean), standard deviation, minimum, maximum

Sphincter Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument motor items that assess sphincter control: Bladder Management, Bowel Management.

Available metrics average (mean), standard deviation, minimum, maximum

Sphincter Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument motor items that assess sphincter control: Bladder Management, Bowel Management.

Available metrics: average (mean), standard deviation, minimum, maximum

Sphincter Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument motor items that assess sphincter control: Bladder Management, Bowel Management.

Available metrics: average (mean), standard deviation, minimum, maximum

Transfer Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument motor items that assess ability to transfer from one surface to another: Bed to Chair/Wheelchair Transfer, Toilet Transfer and Tub/Shower Transfer.

Available metrics: average (mean), standard deviation, minimum, maximum

Transfer Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument motor items that assess ability to transfer from one surface to another: Bed to Chair/Wheelchair Transfer, Toilet Transfer and Tub/Shower Transfer.

Available metrics: average (mean), standard deviation, minimum, maximum

Transfer Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument motor items that assess ability to transfer from one surface to another: Bed to Chair/ Wheelchair Transfer, Toilet Transfer and Tub/Shower Transfer.

Available metrics: average (mean), standard deviation, minimum, maximum

Locomotion Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument motor items that assess locomotion: Walk/Wheelchair and Stairs.

Available metrics: average (mean), standard deviation, minimum, maximum

Locomotion Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument motor items that assess locomotion: Walk/Wheelchair and Stairs.

Available metrics: average (mean), standard deviation, minimum, maximum

Locomotion Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument motor items that assess locomotion: Walk/Wheelchair and Stairs.

Available metrics: average (mean), standard deviation, minimum, maximum

Communication Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument cognitive items that assess communication skills: Comprehension, Expression.

Available metrics: average (mean), standard deviation, minimum, maximum

Communication Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument cognitive items that assess communication skills: Comprehension, Expression.

Available metrics: average (mean), standard deviation, minimum, maximum

Communication Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument cognitive items that assess communication skills: Comprehension, Expression.

Available metrics: average (mean), standard deviation, minimum, maximum

Social Cognition Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument cognitive items that assess social and cognitive skills: Social Interaction, Problem Solving and Memory.

Available metrics: average (mean), standard deviation, minimum, maximum

Social Cognition Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument cognitive items that assess social and cognitive skills: Social Interaction, Problem Solving and Memory.

Available metrics: average (mean), standard deviation, minimum, maximum

Social Cognition Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument cognitive items that assess social and cognitive skills: Social Interaction, Problem Solving and Memory.

Available metrics: average (mean), standard deviation, minimum, maximum

15 Additional Help With NRS eReports

15.1 Demonstrated Help Tutorials

If you click on the Help link that appears at the top of every NRS eReports page, you will have access to 30 demonstrated help tutorials. Each tutorial is approximately one minute long and shows you how to perform some common task within MicroStrategy. Please note that these demonstrated help tutorials are generic MicroStrategy tutorials, so some of the information available may not be applicable to NRS eReports.

15.2 MicroStrategy Help Menu

The MicroStrategy application that contains the NRS eReports has a built-in Help feature. To access the Help menu, click on the Help link at the top of any page. This will take you to the Demonstrated Help Tutorials screen (discussed above). The MicroStrategy Help menu can be accessed by clicking on the Help link in the top of this screen. While this Help menu contains detailed information about all aspects of the MicroStrategy platform, please note that because this is a generic MicroStrategy Help menu, some of the information available may not be applicable to NRS eReports.

15.3 FAQs

From the Resources section in the bottom-right corner of the NRS eReports Launch Page, you can link to a collection of Frequently Asked Questions (FAQs) and their answers. This FAQ list will grow over time as the NRS eReports system is used by more people.

15.4 CIHI eReports Education Products

CIHI produces a number of educational products to help support use of eReports. For example, CIHI's General eReporting eLearning course, "*An Introduction to CIHI eReporting*," may provide a useful tool for learning fundamentals of eReporting and MicroStrategy. To access these products, visit https://learning.cihi.ca.

15.5 Contact Us

For client support, please contact the NRS team at nrs@cihi.ca or submit a question via the eQuery online tool.

Part 3: Appendices

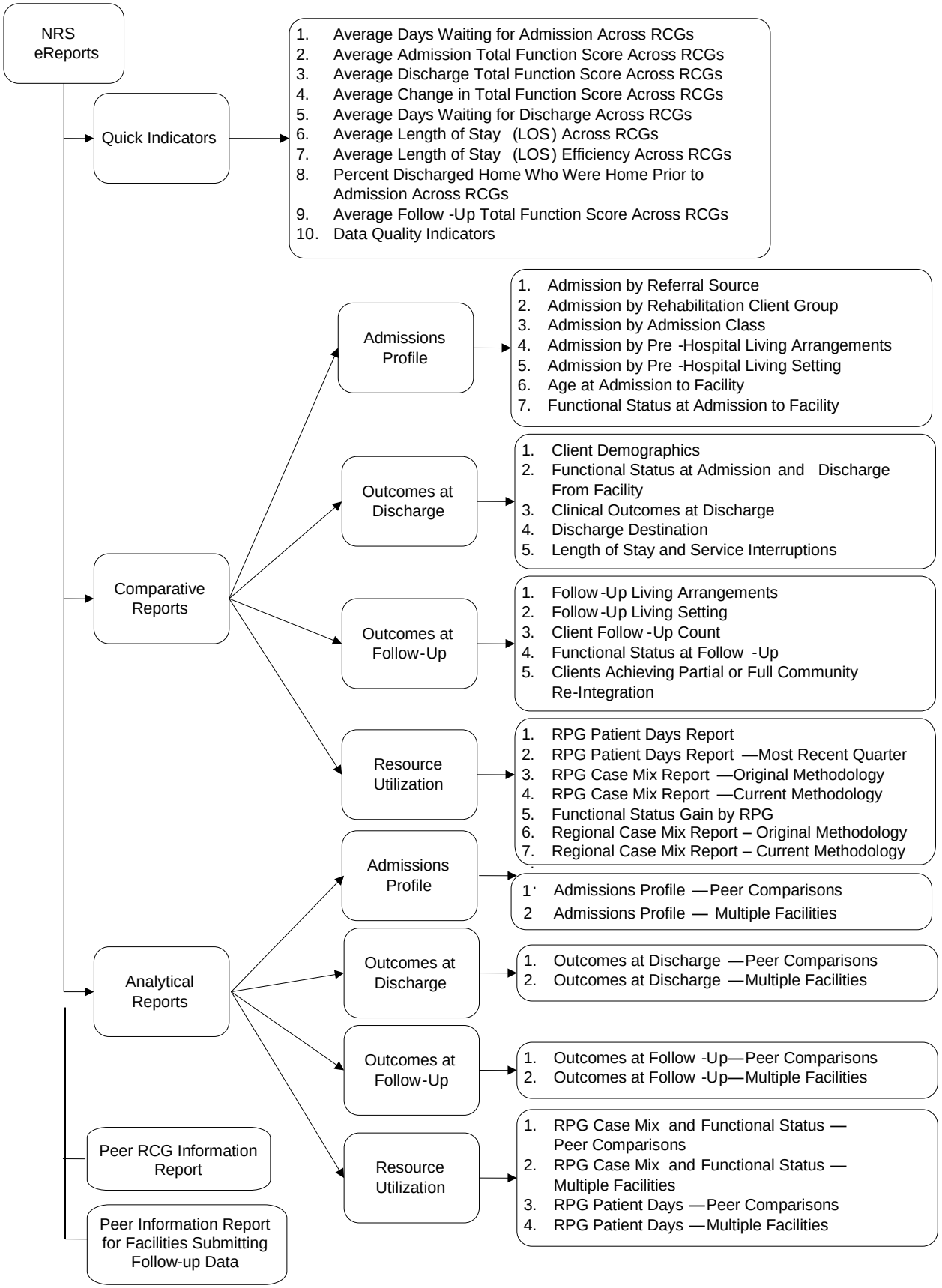
Appendix A	NRS eReports Folder Structure
Appendix B	NRS Glossary
Appendix C	History of Changes to the NRS eReports
Appendix D	Alignment With Previous NRS Quarterly Comparative Reports
Appendix E	Notes for CIHI Portal Users

Appendix A—NRS eReports Folder Structure

Report Type	Sub-Folders	Reports Available	Display Data By
NRS Quick Indicators	Not applicable	1. Average Days Waiting for Admission Across Rehabilitation Client Groups (RCGs) 2. Average Admission Total Function Score Across Rehabilitation Client Groups (RCGs) 3. Average Discharge Total Function Score Across Rehabilitation Client Groups (RCGs) 4. Average Change in Total Function Score Across Rehabilitation Client Groups (RCGs) 5. Average Days Waiting for Discharge Across Rehabilitation Client Groups (RCGs) 6. Average Length of Stay (LOS) Across Rehabilitation Client Groups (RCGs) 7. Average Length of Stay (LOS) Efficiency Across Rehabilitation Client Groups (RCGs) 8. Percent Discharged Home Who Were Home Prior to Admission Across Rehabilitation Client Groups (RCGs) 9. Average Follow-Up Total Function Score Across Rehabilitation Client Groups (RCGs) 10. Data Quality Indicators	Fiscal Year

Report Type	Subfolders	Reports Available	Display Data By
NRS Comparative Reports	Admissions Profile	1. Admission by Referral Source 2. Admission by Rehabilitation Client Group (RCG) 3. Admission by Admission Class 4. Admission by Pre-Hospital Living Arrangements 5. Admission by Pre-Hospital Living Setting 6. Age at Admission to Facility 7. Functional Status at Admission to Facility	Facility Fiscal Year(s) RCG(s) Peer Group(s)
	Outcomes at Discharge	1. Client Demographics 2. Functional Status at Admission and Discharge From Facility 3. Clinical Outcomes at Discharge 4. Discharge Destination 5. Length of Stay and Service Interruptions	Facility Fiscal Year(s) RCG(s) Peer Group(s)
	Outcomes at Follow-Up	1. Follow-Up Living Arrangements 2. Follow-Up Living Setting 3. Client Follow-Up Counts 4. Functional Status at Follow-Up 5. Clients Achieving Partial or Full Community Re-Integration	Facility Fiscal Year(s) RCG(s) Peer Group(s)
	Resource Utilization	1. RPG Patient Days Report 2. RPG Patient Days Report—Most Recently Completed Fiscal Quarter 3. RPG Case Mix (CMI) Report—Original Methodology 4. RPG Case Mix (CMI) Report—Current Methodology 5. Functional Status Gain by RPG 6. Regional Case Mix Report – Original Methodology 7. Regional Case Mix Report – Current Methodology	Facility Fiscal Year(s) RPGs/RGs Peer Group(s)

Report Type	Subfolders	Reports Available	Display Data By
NRS Analytical Reports	Admissions Profile	1. Admissions Profile—Peer Comparisons 2. Admissions Profile—Multiple Facilities	Any attributes
	Outcomes at Discharge	1. Outcomes at Discharge—Peer Comparisons 2. Outcomes at Discharge—Multiple Facilities	Any attributes
	Outcomes at Follow-Up	1. Outcomes at Follow-Up—Peer Comparisons 2. Outcomes at Follow-Up—Multiple Facilities	Any attributes
	Resource Utilization	1. RPG Case Mix and Functional Status—Peer Comparisons 2. RPG Case Mix and Functional Status—Multiple Facilities 3. RPG Patient Days—Peer Comparisons 4. RPG Patient Days—Multiple Facilities	Any attributes
Peer RCG Information Report			
Peer Information Report for Facilities Submitting Follow-up Data			


NRS eReports
Quick Indicators
1. Average Days Waiting for Admission Across RCGs
2. Average Admission Total Function Score Across RCGs
3. Average Discharge Total Function Score Across RCGs
4. Average Change in Total Function Score Across RCGs
5. Average Days Waiting for Discharge Across RCGs
6. Average Length of Stay (LOS) Across RCGs
7. Average Length of Stay (LOS) Efficiency Across RCGs
8. Percent Discharged Home Who Were Home Prior to Admission Across RCGs
9. Average Follow-Up Total Function Score Across RCGs
10. Data Quality Indicators
Comparative Reports
Admissions Profile
1. Admission by Referral Source
2. Admission by Rehabilitation Client Group
3. Admission by Admission Class
4. Admission by Pre-Hospital Living Arrangements
5. Admission by Pre-Hospital Living Setting
6. Age at Admission to Facility
7. Functional Status at Admission to Facility
Outcomes at Discharge
1. Client Demographics
2. Functional Status at Admission and Discharge From Facility
3. Clinical Outcomes at Discharge
4. Discharge Destination
5. Length of Stay and Service Interruptions
Outcomes at Follow-Up
1. Follow-Up Living Arrangements
2. Follow-Up Living Setting
3. Client Follow-Up Count
4. Functional Status at Follow-Up
5. Clients Achieving Partial or Full Community Re-Integration
Resource Utilization
1. RPG Patient Days Report
2. RPG Patient Days Report —Most Recent Quarter
3. RPG Case Mix Report —Original Methodology
4. RPG Case Mix Report —Current Methodology
5. Functional Status Gain by RPG
6. Regional Case Mix Report – Original Methodology
7. Regional Case Mix Report – Current Methodology
Analytical Reports
Admissions Profile
1. Admissions Profile —Peer Comparisons
2 Admissions Profile — Multiple Facilities
Outcomes at Discharge
1. Outcomes at Discharge —Peer Comparisons
2. Outcomes at Discharge —Multiple Facilities
Outcomes at Follow-Up
1. Outcomes at Follow-Up—Peer Comparisons
2. Outcomes at Follow-Up—Multiple Facilities
Resource Utilization
1. RPG Case Mix and Functional Status — Peer Comparisons
2. RPG Case Mix and Functional Status — Multiple Facilities
3. RPG Patient Days —Peer Comparisons
4. RPG Patient Days —Multiple Facilities
Peer RCG Information Report
Peer Information Report for Facilities Submitting Follow-up Data

Appendix B—NRS Glossary

Terms related to the National Rehabilitation Reporting System (NRS) are taken from the *Rehabilitation Minimum Data Set Manual* (RMDSM), which is updated annually and distributed by the Canadian Institute for Health Information. Refer to the RMDSM for context-specific information related to these terms.

A

Active Rehab Length of Stay—The number of days between the date on which the client is admitted to the rehabilitation facility and the date on which the client is ready to be discharged from the rehabilitation facility. Any days on which the client could not participate in the rehabilitation program due to a health reason are excluded from the calculation (see Service Interruption).

Active Rehab Length of Stay Efficiency—The change in Total Function Score (see Total Function Score) per day of client participation in the rehabilitation program. Calculated as the change in Total Function Score from admission to discharge divided by the active rehab length of stay (see Active Rehab Length of Stay).

Admission FIM® instrument Assessment—The baseline functional assessment that is done using the FIM® instrument at the time of admission to the rehabilitation program. The FIM® instrument should be administered within 72 hours of admission.

ASIA impairment scale—A scale that describes the degree of motor and sensory involvement at admission to rehabilitation for traumatic and non-traumatic spinal cord injury. Developed by the American Spinal Injury Association.

Attribute—Attributes allow for the presentation of data by categories. They are added to reports to allow data to be summarized at varying levels of detail. The attributes that appear in a particular report depend on the purpose of the report. Attributes are typically displayed in the rows or page-by axis of NRS eReports, and are also sometimes used as selection prompts (for example, RCG prompt). That is, some of the attributes that can be displayed in the report are also used to select which data is used in that report.

Average—For the purposes of the NRS, defined as the value obtained by adding all of the individual values (for example, FIM® instrument scores, days waiting for admission) in a group and dividing that sum by the number of values in the group. Describes the arithmetic mean of a set of values and is more commonly referred to as “mean” in the NRS eReports.

B

Bathing (FIM® instrument)—Includes bathing (washing, rinsing and drying) the body from the neck down (excluding the neck and back); may be either a tub, shower or sponge/bed bath.

Bladder Management (FIM® instrument)—Includes intentional control of the urinary bladder and, if necessary, use of equipment or agents for bladder control. The functional goal of bladder management is to open the urinary sphincter only when it is needed and to keep it closed the rest of the time. This may require devices, drugs or assistance in some individuals.

Body Mass Index (BMI)—A weight-to-height ratio score calculated by dividing the client’s body weight (in kilograms) by the squared value of the client’s height (in metres) – that is, kg/m^2. BMI values are grouped into four standard categories: underweight (<18.5), normal (18.5-24.9), overweight (25-30), and obese (>30). A fifth category (unable to calculate) is used in the NRS eReports to capture clients for whom a BMI could not be calculated, because of a missing height (element 40A) or weight (element 40B) value, for instance.

Bowel Management (FIM® instrument)—Includes intentional control of bowel movements and, if necessary, use of equipment or agents for bowel control. The functional goal of bowel management is to open the anal sphincter only when it is needed and to keep it closed the rest of the time.

C

Cognitive Function Score (FIM® instrument)—The sum of the scores for the five cognitive elements on the FIM® instrument. A higher Cognitive Function Score suggests a higher level of independent functioning in cognitive activities. See Cognitive Subscale below. Can be calculated on admission and on discharge.

Cognitive Subscale (FIM® instrument)—The five items of the FIM® instrument related to cognitive function: Comprehension, Expression, Social Interaction, Problem Solving and Memory.

Communication Domain (FIM® instrument)—Includes the FIM® instrument cognitive items that assess communication skills: Comprehension, Expression.

Comprehension (FIM® instrument)—Includes understanding of either auditory and/or visual communication (for example, writing, sign language, gestures). Communication can involve simple and/or complex messages, with the scores reflected accordingly.

Continuing Rehabilitation—One of the available options for coding Admission Class in the NRS. This is part of a rehabilitation inpatient stay that began in another rehabilitation unit or facility. The client was admitted directly from a rehabilitation program in another unit or facility—with the same RCG (see Rehabilitation Client Group). Includes transfers to a rehabilitation unit within the same facility.

Current Methodology (Case Mix)—Case Mix metrics may be found in “Current Methodology” or “Original Methodology” Comparative Reports, or may be named as such in the Analytical Reports. “Current Methodology” values are based on the current rehabilitation cost weights and outlier trim points being used in the RPG Case Mix Methodology (visit www.cihi.ca/casemix for more information on values that are currently being used). “Original Methodology” values for a particular fiscal year are based on the rehabilitation cost weights and outlier trim-points that were in effect during that fiscal year. The “Current Methodology” values permit users to analyze trends over time, whereas the “Original Methodology” values permit users to view the data that would have been seen in reports created in those fiscal years.

D

Date of Onset—The calendar date of onset of the main rehabilitation condition coded under Rehabilitation Client Group (see Rehabilitation Client Group) that precipitated the admission into rehabilitation. For acute conditions, the date of onset is the date of injury or surgery. For chronic condition (for example, COPD), the date of onset is the date of the most recent exacerbation or functional loss that resulted in the admission to the inpatient rehabilitation unit.

Date Ready for Admission—The date on which the client meets criteria for admission to the rehabilitation facility and is considered ready to start a rehabilitation program. It does not refer to the date the client is put on a waiting list if this is done prior to when the client is clinically ready for rehabilitation.

Date Ready for Discharge—The calendar date that the client is considered ready for discharge from the rehabilitation program. On this date the client meets criteria for discharge according to the rehabilitation team and has met all or most of the rehabilitation goals set for them.

Days Waiting for Admission—One of the NRS indicators relating to accessibility. Defined as the number of days between the Date Ready for Admission and the Date of Admission to rehabilitation.

Discharge FIM® instrument Assessment—The assessment of the client's functional ability using the FIM® instrument at discharge. The FIM® instrument should be administered within 72 hours before discharge from the rehabilitation program.

Dressing—Lower Body (FIM® instrument)—Includes dressing and undressing below the waist, as well as applying and removing a prosthesis or orthosis when applicable. Includes all items of clothing that are typically worn. The client must use clothing that is appropriate to wear in public. Assessment starts in front of the closet or dresser drawers and includes reaching for items of clothing.

Dressing—Upper Body (FIM® instrument)—Includes dressing and undressing above the waist, as well as applying and removing a prosthesis or orthosis when applicable. Includes all items of clothing that are typically worn. The client must use clothing that is appropriate to wear in public. Assessment starts in front of the closet or dresser drawers and includes reaching for items of clothing.

Drilling—"Drilling down" refers to looking at more specific groupings of data. For example, if data is shown for a particular fiscal year, you might "drill down" to view the data at the level of reporting periods (i.e., quarters). "Drilling up" refers to looking at less specific, larger groupings of data. For instance, you might choose to collapse data across various age groups if age was not an important factor in your analysis. In this case, you are "drilling up" from the level of age groups. Likewise, if you were only interested in overall number of clients requiring rehabilitation for a particular impairment, you might "drill up" from the level of sex (i.e., collapse data across both sexes). You could also "drill up" from the level of Rehabilitation Patient Group (RPG) to the higher Rehabilitation Group (RG) level.

E

Eating (FIM® instrument)—Includes using suitable utensils to scoop and bring food to the mouth, as well as chewing and swallowing, once the meal is presented in the customary manner on a table or tray. Includes all intake of nutrition over a 24-hour period, including tube feeding.

Episode—For the purposes of the NRS, an episode consists of a complete Admission and a Discharge record, and encompasses the entire stay in inpatient rehabilitation. The analyses in the NRS reports are primarily based on rehabilitation episodes. Exception: Clients recorded as having an (Un)planned Discharge are still considered to have had a rehabilitation episode in the NRS (see [Un]planned Discharge).

Expression (FIM® instrument)—Includes clear vocal and/or non-vocal expression of language. This item includes either intelligible speech or clear expression of language using writing or a communication device. Expression of intent can involve simple and/or complex ideas, with scores reflected accordingly.

F

Facility—Refers to the site where the rehabilitation beds are grouped and represents the level at which hospitals submit data for the NRS. Often, "facility" is synonymous with "hospital". For hospitals with more than one site or location, there may be more than one NRS facility within a hospital corporation.

FIM® instrument—The functional assessment instrument included in the Uniform Data Set for Medical Rehabilitation (UDS_{MR}). It is composed of 18 items (13 motor items and 5 cognitive items) that are rated on a seven-level scale representing gradations from independent (7) to dependent (1) function. The FIM® instrument is a measure of disability, and looks at the caregiver burden associated with the level of disability.

Follow-up FIM® instrument Assessment—The assessment of the client's functional ability using the FIM® instrument that is collected between 80 and 180 days after discharge from the rehabilitation program.

G

General Rehabilitation Facility—A facility that provides inpatient rehabilitation services in designated units, programs or beds within a general hospital that has multiple levels of care (i.e. rehabilitation, acute care, chronic care, emergency). Rehabilitation clients receive multi-dimensional (physical, cognitive, psycho-social) diagnostic, assessment, treatment and service planning interventions.

Grooming (FIM® instrument)—Includes a minimum of four activities: (1) oral care; (2) hair grooming (combing or brushing hair); (3) washing the hands; (4) washing the face; and may include a fifth activity, either shaving the face or applying make-up, where applicable. Washing includes rinsing and drying.

H

Health Care Number—The client's health (insurance) number as assigned by the provincial/territorial government of residence.

I

Impact of Pain—A self-report item describing the impact of pain on a client's daily activities. This is one of two self-report data elements collected for the NRS.

Initial Rehabilitation—One of the available options for coding Admission Class in the NRS; describes a client's first admission to an inpatient rehabilitation facility for a particular rehabilitation condition (see Rehabilitation Client Group).

J

K

L

Length of Stay (LOS)—The number of days between the date on which the client is admitted to the rehabilitation facility and the date on which the client is discharged from the rehabilitation facility. Clients admitted and discharged on the same day have an LOS of 1 day. Any days on which the client could not participate in the rehabilitation program due to a health reason are excluded from the calculation (see Service Interruption).

Length of Stay Efficiency—The change in Total Function Score (see Total Function Score) per day of client participation in the rehabilitation program. Calculated as change in Total Function Score from admission to discharge divided by length of stay (see Length of Stay).

Locomotion Domain (FIM® instrument)—Includes the FIM® instrument motor items that assess locomotion: Walk/Wheelchair and Stairs.

Locomotion—Stairs (FIM® instrument)—Includes going up and down 12 to 14 stairs (one flight) indoors.

Locomotion—Walk/Wheelchair (FIM® instrument)—Includes walking, once in a standing position, or if using a wheelchair, moving forward once in a seated position and on a level surface.

M

Mean—For the purposes of the NRS, defined as the value obtained by adding all of the individual values (for example, FIM® instrument scores, days waiting for admission) in a group and dividing that sum by the number of values in the group. Describes the arithmetic mean of a set of values. Also referred to as the **Average**.

Median—The middle value in a group when the values are arranged in an increasing order. If there is an even number of values, the median is the average of the middle two values. For example, in the series 2, 5, 7, 9, 12, the value 7 is the median. Median is not calculated in the same way as **Mean** (or **Average)** but it may sometimes result in the same value, as in the example shown here.

Memory (FIM® instrument)—Memory in this context includes the ability to store and retrieve information, particularly verbal and visual. The functional evidence of memory includes (1) recognizing people frequently encountered, (2) remembering daily routines and (3) executing requests without being reminded.

Metrics—Refers to the numerical data, such as percentages (%), counts (N) or a variety of summary statistics (for example, mean, median, standard deviation) that summarize each of the demographic, clinical and administrative indicators available in NRS eReports (for example, number of clients, length of stay, Total Function Score). A full listing and description of available metrics is provided in Chapter 14.

Most Responsible Health Condition—The primary etiological diagnosis that describes the most significant condition leading to the client's rehabilitation stay. Where multiple conditions exist, it is the one health condition that is most related to the Rehabilitation Client Group and the condition that most of the resources are directed towards (see Rehabilitation Client Group).

Motor Function Score (FIM® instrument)—The sum of the scores for the 13 motor elements on the FIM® instrument. A higher Motor Function Score suggests a higher level of independent functioning in motor activities (see Motor Subscale). This can be calculated on admission and on discharge (where applicable).

Motor Subscale (FIM® instrument)—The 13 motor items of the FIM® instrument: Eating; Grooming; Bathing; Dressing—Upper Body; Dressing—Lower Body; Toileting; Bladder Management; Bowel Management; Transfers—Bed, Chair, Wheelchair; Transfers—Toilet; Transfers—Tub or Shower; Locomotion—Walk, Wheelchair; and Locomotion—Stairs.

N

National Rehabilitation Reporting System (NRS)—A primarily voluntary national health information system for adult inpatient rehabilitation services. The province of Ontario has mandated its use for all designated rehabilitation beds in that province. The NRS contains client data collected from participating adult inpatient rehabilitation facilities and programs across Canada. The NRS data elements contain information related to socio-demographic information, administrative data, health characteristics, activities and participation and therapeutic interventions. These elements are used to estimate a variety of indicators including wait times and client outcomes.

NRS Data Quality Report for Provinces/Territories—A data quality report completed on an annual basis and sent to the deputy ministers of health of each province/territory in an effort to raise awareness and highlight data quality issues.

O

Original Methodology (Case Mix)—Case Mix metrics may be found in "Current Methodology" or "Original Methodology" Comparative Reports, or may be named as such in the Analytical Reports. "Current Methodology" values are based on the current rehabilitation cost weights and outlier trim points being used in the RPG Case Mix Methodology (visit www.cihi.ca/casemix for more information on values that are currently being used). "Original Methodology" values for a particular fiscal year are based on the rehabilitation cost weights and outlier trim-points that were in effect during that fiscal year. The "Current Methodology" values permit users to analyze trends over time, whereas the "Original Methodology" values permit users to view the data that would have been seen in reports created in those fiscal years.

P

Page-By Axis—The page-by axis appears at the top of each report grid or graph and provides you with a way to change which information is displayed in the report. Using this axis, you can restrict visible grid or graph data according to a specific attribute or metric. The page-by axis may automatically include metrics and attributes that are available in the report, or you may have to add desired metrics and attributes using the Pivot Buttons (see Chapter 7.5 for more details), depending on which report you have created. The metrics/attributes in the page-by axis can also be moved from the page-by axis into the report rows or columns.

Patient Days—The number of days that a client is present in an inpatient rehabilitation bed or facility in a given time period. Calculated for both open and closed episodes of care.

Post-Admit Comorbid Health Condition ICD-10-CA—Health conditions that arise after admission and during the rehabilitation stay that affect the client's health/functional status and resource requirements during the rehabilitation program. This includes post-admit complications and/or comorbid conditions that delay, interrupt or compromise the effectiveness of the rehabilitation program or represent high medical risk disorders (e.g. previous cardiac arrest, pulmonary embolus, ruptured aneurysm). Includes conditions of short during that were resolved during the stay and conditions that persist at discharge.

Post-Discharge Living Setting—Physical environment the client will be living in following discharge from the rehabilitation program.

Pre-Admit Comorbid Health Condition ICD-10-CA—Existing health conditions present at the time of rehabilitation admission that affect the client's health/functional status and resource requirements during the rehabilitation program. This includes pre-admit complications and/or comorbid conditions that delay, interrupt or compromise effectiveness of the rehabilitation program or represent high medical risk disorders (e.g. previous cardiac arrest, pulmonary embolus, ruptured aneurysm).

Pre-Hospital Living Setting—Physical environment the client was living in prior to his/her admission to hospital for rehabilitation. For example, a private home, or a residential care facility.

Primary Reason for Waiting for Discharge—The primary reason a patient waited to be discharged from a facility/agency.

Private Practice—An independent practice to whom the client may be referred at time of discharge for related services following the rehabilitation episode; for example, a physician or physiotherapy clinic.

Problem Solving (FIM® instrument)—Includes skills related to solving problems of daily living and generally involves five steps: (1) recognizing that a problem is present; (2) making appropriate decisions; (3) initiating steps and readjusting to changing circumstances; (4) carrying out a sequence of events and; (5) evaluating the solution.

Prompts—Prompts are used to dynamically modify the content of a report at run time. When creating a report, you will be "prompted" for information that will tell the application what kind of report to produce. For example, you might be prompted to select a particular RCG to look at, or a time period on which to focus (for example, Fiscal Year = 2004), or to select the facilities with whom you want to compare.

Q

R

Readmission—One of the available options for coding Admission Class in the NRS. The code used for a client admitted to an inpatient rehabilitation facility or unit where the current admission is related to a prior admission for the same rehabilitation condition (see Rehabilitation Client Group). For example, a client who received rehabilitation for a leg amputation returns to the facility a month later with a wound on the residual limb. There is no time limit for length of time since the previous admission.

Record—For the purposes of the NRS, a record consists of the complete information collected on Admission (Admission Record), Discharge (Discharge Record) or Follow-up (Follow-up Record). A completed Admission and Discharge record for a client constitutes a rehabilitation episode in the NRS (see Episode).

Referred to Facility Number—A unique facility number (including province number) assigned by the province/territory to which the person was referred at time of discharge from inpatient rehabilitation. Applies only to hospitals and residential care facilities.

Rehabilitation Client Group (RCG)—The condition that best describes the primary reason for the client's admission to the rehabilitation program. The rehabilitation team determines the RCG at the time of admission.

Rehabilitation Goals—The functional objectives set by the client in partnership with the rehabilitation team. These are determined shortly after admission to the rehabilitation facility and generally form the basis for activities that will be included in the rehabilitation program.

Rehabilitation Group (RG)—A type of categorization representing the highest level of diagnostic classification for clinically similar patients and used in the RPG case mix grouping methodology for the NRS. The RPG methodology was developed by Ontario's Joint Policy and Planning Committee (JPPC) using data from the NRS and other sources for Ontario facilities. Assignment to any of the 21 RGs is based on the Rehabilitation Client Group (RCG) code selected for each NRS record. Each patient is assigned to an RG, based on their RCG, which is combined with other variables to assign each patient to an RPG.

Rehabilitation Patient Group (RPG)—A sub-classification of Rehabilitation Groups (RG) in inpatient rehabilitation case mix grouping methodology developed by Ontario's Joint Policy and Planning Committee (JPPC) using NRS data for Ontario facilities. Patients are assigned to one of the 83 specific RPGs based on a combination of RG, Admission Motor Function Score and/or

Admission Cognitive Function Score (derived from data collected using the FIM® instrument) and/or age. Each RPG is associated with a typical cost weight, which is intended to be updated annually. See also Chapter 13 for more information.

Report—A report is the outcome of analytical queries. The knowledge gained from reports can be used in decision-support activities. A report is created by querying a CIHI datamart containing Canadian health data (such as the National Rehabilitation Reporting System).

Reports can be formatted in three ways:

1. **Grid—**report data is displayed in a table

2. **Graph—**report data is displayed on a graph

3. **Combined Grid/Graph—**report data is displayed in **both** a data table and on a graph

You can switch between these three formats by using the View Menu or the appropriate toolbar buttons. The formatting options that are available to you in each of these formats are different and the visible toolbars and menu items will automatically update as you switch between them.

S

Self-Care Domain (FIM® instrument)—Includes the FIM® instrument motor items that assess basic activities necessary for daily personal care: Eating, Grooming, Bathing, Dressing Upper Body, Dressing Lower Body and Toileting.

Service Interruption—Occurs when a client is unable to participate in the rehabilitation program due to a health condition that may or may not result in a transfer out of the rehabilitation bed or unit. Service Interruptions are generally coded only when the client misses more than one day of active rehabilitation and the condition is felt to impact on the client's progress in rehabilitation. This does not include weekend passes to visit family at home or temporary bed closures.

Short Stay—One of the available options for coding Admission Class in the NRS. Refers to an inpatient rehabilitation stay lasting between 4 and 10 days. The client is admitted for a brief intervention (for example, prosthetic adjustment), OR the rehabilitation stay lasts only between 4 and 10 days because of medical complications OR the client was discharged against medical advice. Can be coded on Admission if the length of stay is expected to fall within 4–10 days, or re-coded on Discharge to reflect unexpected change in Admission status.

Social Cognitive Domain (FIM® instrument)—Includes the FIM® instrument cognitive items that assess social and cognitive skills: Social Interaction, Problem Solving and Memory.

Social Interaction (FIM® instrument)—Includes skills related to participating and co-operating with others in therapeutic and social situations. It represents how one deals with one's own needs together with the needs of others. Participation includes socializing with others or becoming involved in group activities. Co-operation includes working or collaborating with others and following cueing, coaxing and/or directions.

Specialty Rehabilitation Facility—A facility that provides comprehensive inpatient rehabilitation services or specialized rehabilitation programs. This is often a freestanding hospital, but can be a specialized unit within a larger acute or chronic-care facility. In addition to interventions provided in a General Rehabilitation Facility, clients in a Specialty Facility also have access to more comprehensive services such as surgical specialists, orthotics, prosthetics, etc.

Sphincter Domain (FIM® instrument)—Includes the FIM® instrument motor items that assess sphincter control: Bladder Management, Bowel Management.

T

Toileting (FIM® instrument)—Includes three main tasks: (1) adjusting clothing before using toilet, commode or bedpan; (2) maintaining perineal hygiene; and (3) adjusting clothing after using toilet, commode or bedpan.

Total Function Score (FIM® instrument)—The sum of the scores for all 18 elements on the FIM® instrument; ranging from 18 to 126. A higher Total Function Score suggests a higher level of independent functioning in activities of daily living and communication.

Transfer Domain (FIM® instrument)—Includes the FIM® instrument motor items that assess ability to transfer from one surface to another: Bed to Chair/Wheelchair Transfer, Toilet Transfer and Tub/Shower Transfer.

Transfers—Bed, Chair/Wheelchair (FIM® instrument)—Includes all aspects of transferring to and from a bed, chair, and wheelchair (if client uses a wheelchair), or coming to or from a standing position (if walking is the typical mode of locomotion). Client moves from a supine to a standing position on the bed and vice versa.

Transfers—Toilet (FIM® instrument)—Includes getting on and off a toilet.

Transfers—Tub or Shower (FIM® instrument)—Includes getting into and out of a tub or shower stall. Includes positioning, standing, pivot, sitting or sliding transfer, and for tub transfers, also includes lifting legs over threshold of tub.

U

(Un)planned Discharge—One of the available options for coding Admission Class in the NRS. Refers to an inpatient rehabilitation stay lasting three days or less, including the day of admission. Includes planned and unplanned discharges. In these cases, the Admission FIM® instrument is typically not completed, but can be included in the NRS record if complete.

V

W

X

Y

Z

Appendix C—History of Changes to the NRS eReports

The following table lists the modifications that have been made to the NRS eReports since the system was launched in July 2009. Questions about any of these modifications can be directed to nrs@cihi.ca.

Modification	Location	Implementation Date
MicroStrategy Version 9 implemented. Includes improved functionality and minor changes to appearance.	Throughout	Jan 2010
Created two “Peer Information” (RCG) reports to assist with picking of peer groups	NRS eReports folder	May 2010
Added “Active Rehab Length of Stay Efficiency” metrics to various reports	CR-OD#5, CR-RU#5, AR-OD, AR-OF, AR-RU#1&2	June 2010
Added “Active Rehab Length of Stay, Mean” metric to CR-RU#5	CR-RU#5	June 2010
Added “Clients Discharged Home that Were Home Prior to Admission, Count" and "…, Percent" metrics	AR-OD	June 2010
Added all Case Mix related metrics (for both “Current” and “Original” methodologies, except “Case Mix Index” metric) previously found in the CR-RU#3&4 reports to the AR-RU#1&2 reports. Additionally added new metrics “Outlier Cases, Short Stay, Count of Clients” and “Outlier Cases, Long Stay, Count of Clients”	AR-RU#1&2	June 2010
Added ability to drill from Fiscal Year to Fiscal Quarter for Quick Indicator reports (except QI#10)	QI#1-9	June 2010
Changed methodology slightly for QI#2-4 to include only clients that have Total Function Score at both Admission and Discharge. Previously, these reports included any client having Total Function Score at Discharge, with or without an equivalent Admission score. (Change affected only one client in database, but done to improve the reports’ logic.)	QI#2-4	June 2010

Modification	Location	Implementation Date
Changed methodology slightly for CR-RU#5 to filter out clients that do not have a complete Total Function Score at Discharge. Also changed metric displayed in the first column of the report from “Clients Discharged, Count” to “Clients with a Complete Discharge FIM® Instrument Assessment, Count” as this is the population on which the remaining metrics are based.	CR-RU#5	June 2010
Added “Rehabilitation Patient Group (RPG)” and “Rehabilitation Group (RG)” attributes to the prompt screens of all Analytical Reports (previously only available for AR-RU reports).	AR-AP, AR-OD, AR-OF	July 2010
Added “Clients Reporting Worsening of Pain, Count" and "…, Percent" metrics	CR-OD#3, AR-OD, AR-OF	Sept 2010
Added “Weight” and “Body Mass Index (BMI)” metrics. (Only calculated for fiscal years 2009-2010 and later due to changes in database specifications.)	CR-OD#1, AR-AP, AR-OD, AR-OF, AR-RU	Sept 2010
Added “Body Mass Index (BMI)” as an attribute. Composed of the four standard BMI groupings, plus “Not Able to Calculate”. (Only calculated for fiscal years 2009-2010 and later due to database changes.)	AR-AP, AR-OD, AR-OF, AR-RU	Sept 2010
Added the latest 2010-2011 MOH-LTC Cost Weight values (weights & trim points) to the eReports. These values will be applied to all fiscal years in any “Current Methodology” Case Mix report, but only to 2010-2011 data in any “Original Methodology” Case Mix report.	CR-RU#3&4, AR-RU#1&2	Sept 2010
Changed methodology slightly, based on discussions with Case Mix group, for assignment of RPGs 2700 “Burns” and 3000 “Ventilator-Dependent Respiratory Disorders”. These two RPGs are now assigned to any clients with RCG = 11.1 or 17.51, respectively, regardless of whether or not they have complete admission FIM® scores. For all other RPGs, only clients with complete admission FIM® scores will be considered for classification; all others will be assigned to the “Not Applicable” category.	Throughout	Sept 2010
Launched NRS Portal ad-hoc reporting environment, available to clients subscribing to CIHI Portal product. NRS eReports included in Portal environment.	N/A	Jan 2011

Modification	Location	Implementation Date
Moved all reports from “Shared Reports” folder to “NRS eReports” folder.	Shared Reports	Jan 2011
Changed naming format of all metrics. For example, “Onset Days, Mean” changed to “Onset Days (AVG),” and “Clients Discharged, Count” changed to “Clients Discharged (COUNT).”	Throughout	Jan 2011
Changed naming convention for functional assessment metrics. Each such metric now has “A”, “AD” or “ADF” included in its name, to identify the client population on which the metric is based. See section 14.3 for a more thorough description.	Throughout	Jan 2011
New Case Mix methodology. Introduction of per diem short-stay cost weights and short-stay trim points that vary depending on RPG, new rehab cost weights and long-stay trim values.	RU Reports	Apr 2011
LOS and Case Mix LOS metrics changed to accommodate same-day admit/discharge episodes. Clients admitted and discharged on the same day receive an LOS of 1 day instead of 0 days.	Throughout	Apr 2011
New “User-Defined NRS eReports” folder added, allowing NRS eReports users to create, save and share reports with other users.	Shared Reports	Sept 2011
Two new regional case mix reports introduced.	CR-RU#6, CR-RU#7	Sept 2011
Rehab Client Subgroup ID code added to eReports. When drilling from RCG to RC Subgroup, can now see the numeric code as well as the subgroup name.	Throughout	Dec 2011
Calculation of Active Rehab LOS changed to include all discharged clients, rather than only those for whom Date Ready for Discharge was coded. For those with Date Ready for Discharge not coded, date assumed to be the same as Discharge Date.	CR-OD#5, CR-RU#5, AR-OD, AR-OF, AR-RU	Dec 2011
Added MEDIAN metrics for Function Score Change indicators. Previously unavailable.	AR-OD, AR-RU	Dec 2011
Introduced COUNT metrics for Total Service Interruption Days and LOS indicators. Previously not available.	AR-OD, AR-RU	Dec 2011
Added Post-Discharge Living Arrangements to the list of available attributes in discharge analytical reports.	AR-OD	Dec 2011
Added Active Rehab LOS (AVG) metric to resource utilization reports.	AR-RU	Dec 2011

Modification	Location	Implementation Date
Added Referral Source as an attribute	AR-OD	Sept 2012
Added "Onset Days" (MAX, MIN, AVG, MEDIAN, and STD DEV) as a metric	AR-AP	Sept 2012
Added "Days Waiting for Admission" (COUNT, AVG, MEDIAN, 25^{TH} PERCENTILE and 75^{TH} PERCENTILE) metrics	AR-AP	Sept 2012
Removed "Incomplete Episodes" indicator due to complaints that the methodology was too confusing to understand. More accurate information about incomplete episodes can be found in NRS quarterly *RPG Reports*.	QI #10	Sept 2012
Added "LOS Efficiency (MEDIAN)" as a metric	AR-OD	Sept 2012
Added "Primary Reason Waiting for Discharge" as an attribute	AR-OD	Sept 2012
Added Pre-Admit Comorbid (COUNT) as a metric	AR-AP, AR-OD	Sept 2012
Added Post-Admit Comorbid (COUNT) as a metric	AR-AP, AR-OD	Sept 2012
Added "Most Responsible Health Condition ICD-10-CA Chapter" as an attribute. ICD-10-CA codes can be displayed by Chapter, Rubric code or individual code via drilling.	AR-AP, AR-OD	Sept 2012
Added ASIA Impairment Scale as an attribute	AR-AP	Sept 2012
MicroStrategy upgrade to version 9.3. Includes minor changes to appearance of reports and use of toolbars.	Throughout	Jan 2013
Added "Clients Home Prior to Admission (COUNT)" as a metric	AR-OD	Sept 2014

Legend: AR = Analytical Reports; CR = Comparative Reports; QI = Quick Indicators; AP = Admission Profile reports; OD = Outcomes at Discharge reports; OF = Outcomes at Follow-up reports; RU = Resource Utilization reports

Appendix D—Notes for CIHI Portal Users

This section is specific to users of the CIHI Portal ad hoc reporting product.

Introduction

Working within CIHI Portal's dynamic, web-based environment, registered users from Canada's data-submitting health care organizations—such as hospitals, regional health authorities and ministries of health—are able to explore and answer today's health care questions like never before. The inclusion of NRS data in the CIHI Portal environment means that Portal subscribers can access existing NRS eReports and/or create ad hoc NRS reports.

The NRS Environment

The National Rehabilitation Reporting System (NRS) was developed by CIHI in 2001 to support data collection by hospitals for inpatient rehabilitation clients who are mainly age 18 and older. The rehabilitation services are provided in specialized rehabilitation hospitals and in general hospitals within rehabilitation units, programs or designated rehabilitation beds. As of 2011–2012, there were over 330,000 pairs of admission and discharge records (that is, complete episodes) in the NRS database, submitted by over 100 hospitals in nine provinces and covering a range of health conditions including strokes, orthopedic conditions and amputations.

The introduction of NRS data to the Portal environment provides users with access to data surrounding adult inpatient rehabilitation services. The NRS data set consists of data elements of the following major categories:

- Socio-Demographics: Information such as full date of birth, sex, living arrangements and vocational status are collected to provide valuable information on the types of patients admitted to rehabilitation programs.

- Administrative: Data is collected on wait times for admission and discharge, service interruptions and provider types in order to better understand accessibility to rehabilitation, factors influencing length of stay and resource utilization.

- Health Characteristics: Diagnoses and related comorbidities at admission provide information on conditions most often seen in a rehabilitation setting and conditions that may affect a patient's ability to progress in the rehabilitation program.

- Activities and Participation: This is the largest section of the data set and provides clinical data on the motor and cognitive functional abilities of rehabilitation patients. The data is collected using the 18-item FIM® instrument, and six additional cognitive data elements developed at CIHI. Together, these provide further information on the cognitive abilities of rehabilitation patients.

The NRS data elements are presented in the Portal environment in the following format:

1. NRS Common Attributes
2. NRS Diagnosis Analysis
3. NRS Interruption Analysis
4. NRS Episode Analysis

5. NRS Procedure Analysis

Analytical Objects

Attributes/Metrics

Most NRS attributes and metrics that are available in the Portal environment are described in Chapters 13 & 14 of this ***NRS eReports Manual***. For a complete list of NRS attributes and metrics available in Portal's ad hoc environment (including object name, description and location in the Portal environment), please consult the ***NRS Data Dictionary***, available on the Portal client services site.

NRS eReports

In addition to providing the ability to create ad hoc reports with NRS data, CIHI Portal also permits access to most or all of the existing NRS eReports (as described in this *NRS eReports Manual*), depending on the level of access possessed by a particular user.

NRS Quick Indicators

Quick Indicators are the quickest and simplest type of reports to generate. They are nine "at-a-glance" reports of several admission, discharge and follow-up indicators. All nine graphs have identical properties, each reporting on a different indicator. Reports present information based on facility, facility type (general or specialty) and desired fiscal year. Indicators are presented at the Facility, Peer and National (All) levels. You will be prompted only for your facility name and number in order to generate the report.

NRS Comparative Reports

Comparative Reports allow a bit more flexibility than Quick Indicator reports, but require slightly more time and effort to build, at least initially. They provide a comprehensive set of NRS indicators at the Facility, Peer and National (All) levels for any of the most recent six fiscal years.

There are four categories of Comparative Reports:

i. Admission Profile reports
ii. Outcomes at Discharge reports
iii. Outcomes at Follow-Up reports, and
iv. Resource Utilization reports

Each category includes up to seven different types of reports that can be generated (e.g., Age at Admission; Functional Status at Discharge; Follow-up Living Setting). You can select options for various factors including peer group, Rehabilitation Client Group (RCG) and the reporting period. In most cases, reports can be viewed as tables or graphs.

NRS Analytical Reports

Analytical Reports are "build-your-own" reports that allow even greater flexibility but require a bit more time and effort to produce than the other two types of reports. As with Comparative Reports, you may select one of four categories. However, unlike Comparative Reports, Analytical Reports allow you to display data based on any available attributes and metrics.

eReports Permissions & Exclusions

If a user is part of an NRS-submitting facility and has access to the NRS eReports, the user will be able to view all NRS eReports upon logging into CIHI Portal. If a user has access to CIHI Portal but does not have access to the NRS eReports, the user will be able to view *all but five* of the NRS eReports. The following five NRS eReports will be hidden due to their lack of applicability to said user:

- NRS Quick Indicators > 10. Data Quality Indicators
- NRS Comparative Reports > Resource Utilization > 1. RPG Patient Days Report
- NRS Comparative Reports > Resource Utilization > 2. RPG Patient Days Report—Most Recently Completed Fiscal Quarter
- NRS Analytical Reports > Resource Utilization > 3. RPG Patient Days—Peer Comparisons
- NRS Analytical Reports > Resource Utilization > 4. RPG Patient Days—Multiple Facilities

Important NRS Data Notes

Years of Data – NRS data for fiscal years 2000-2001 to present have been loaded into the data mart and are now available for ad-hoc reporting in Portal. The NRS eReports within CIHI Portal permit displaying of data for any of the most recent six fiscal years.

Open Year Data – The NRS is comprised completely of open year data, meaning that revisions to previously submitted NRS data may be made at any time.

FIM® Instrument – The NRS data set contains clinical data on functional status based on the 18-item FIM® instrument. The FIM® instrument is used to measure outcomes of functional independence at admission and discharge, and optionally on follow-up after discharge. It is composed of 18 items (13 motor items and 5 cognitive items) that are rated on a seven-level scale representing gradations from independent (7) to dependent (1) function, for an overall maximum score of 126 (18 items x 7). The FIM® instrument measures disability and looks at the caregiver burden associated with the level of disability. The overall FIM® instrument score can be broken down into motor and cognitive subscales to provide further detail on identifying areas of functional loss.

The 18-item FIM® instrument is the property of the Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc.

Coding/Classification – Diagnostic information is available in the NRS for data years 2008-2009 and onwards. This information is based on the ICD-10-CA and CCI classification systems. It is important to note that within the NRS, a pick-list of approximately 2000 ICD-10-CA and 100 CCI codes are available for selection by NRS assessors. The different diagnosis and procedure attributes available are detailed in the NRS data dictionary.

Reporting Provinces/Territories – There are currently nine provinces submitting data to the NRS: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

For more information about the NRS or any of its data or reports, please contact nrs@cihi.ca or visit www.cihi.ca/nrs.